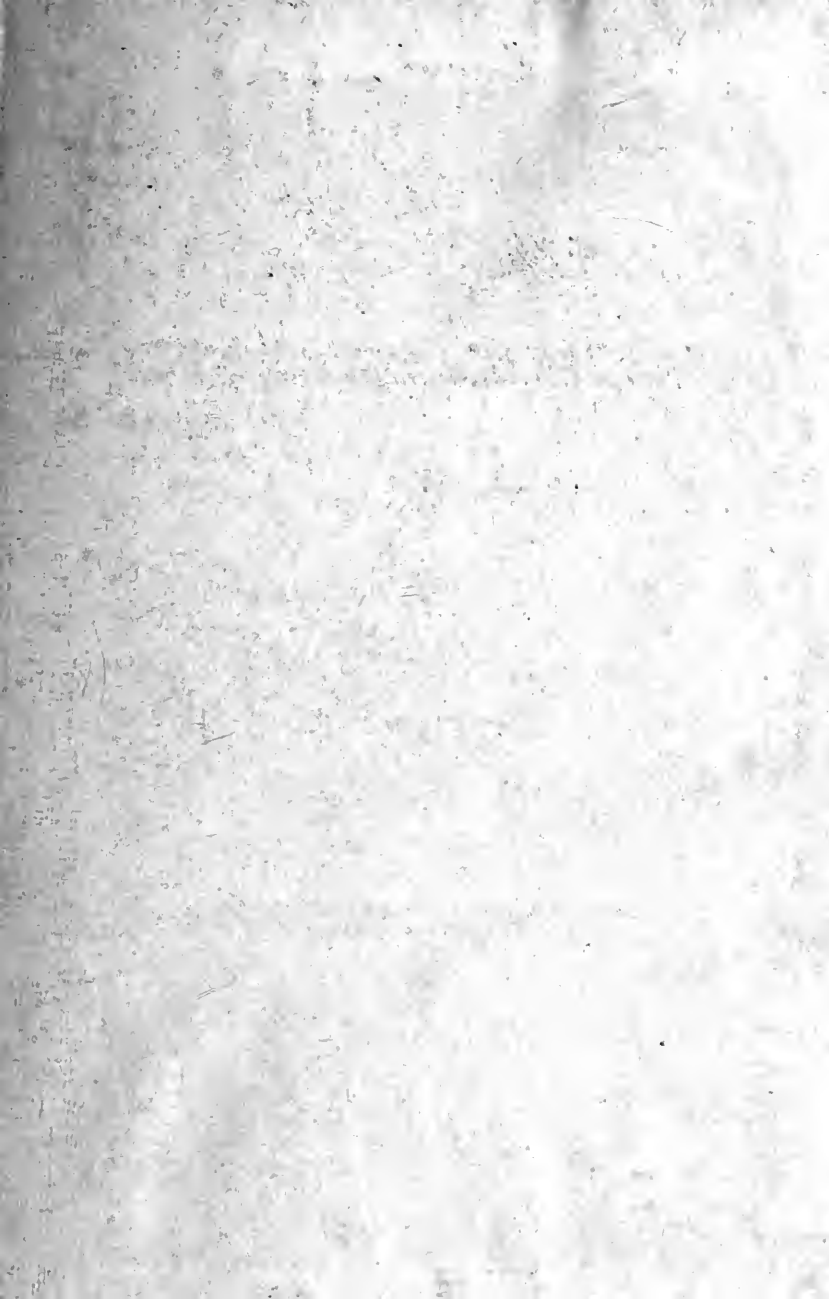


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BALANCE-SHEET
OF
THE WORLD

1870 — 1880



$\frac{a}{b}$

**BALANCE-SHEET OF THE WORLD
FOR TEN YEARS**

BY THE SAME AUTHOR.

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BALANCE-SHEET OF THE WORLD

FOR TEN YEARS

1870-1880

PRESENTED BY THE
PUBLISHER.

By MICHAEL G. MULHALL, F.S.S.

AUTHOR OF 'THE PROGRESS OF THE WORLD,' 'THE ENGLISH IN SOUTH AMERICA,'
'HANDBOOK TO THE RIVER PLATE,' 'HANDBOOK TO BRAZIL,'
ETC. ETC.

173864.
WITH TWELVE COLOURED DIAGRAMS

19.9.22.

LONDON

EDWARD STANFORD, 55 CHARING CROSS, S.W.

1881



PREFACE.

IT is certainly as important for us to know every ten years the progress made by nations in the various branches of industry and finances, as to take a census of their population. The task is, in a manner, easy, since it reduces itself to a careful comparison of the statistics relative to commerce, agriculture, manufactures, revenue, and public debt, as exhibited in the 27 Tables (pages 14 to 40), on which the present work is constructed.

The diagrams show at a glance the results of the said Tables; and here I may observe that the inquiry is confined to the nations of Christendom, that is Europe, America, and the Colonies of Great Britain. It is hardly necessary to add that in all cases the term Great Britain is used as synonymous with the United Kingdom, irrespective of our Colonies.

MICHAEL G. MULHALL, F.S.S.

GRASSLANDS, BALCOMBE,

March 25, 1881.

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BALANCE-SHEET OF THE WORLD.

1870-1880.

THE period of ten years which has just come to a close has been one of marvellous industrial activity, of unprecedented increase in population among the States of Christendom, and an almost unchequered career of prosperity and growing wealth. In the 27 Tables (pages 14-40) the reader will be able to measure each and every element of progress in the various nations, and the result may be briefly summed up thus, for the world :—

Population increased	9·76 per cent
Agriculture „	8·58 „
Manufactures „	18·60 „
Commerce „	38·20 „
Mining „	47·06 „
Carrying-trade „	53·22 „
Earnings of nations	19·84 „
Public wealth „	10·57 „
Taxes „	22·34 „
Public debt „	43·39 „

The most remarkable feature is the improvement in the financial condition of mankind, the earnings of nations having risen in twice the ratio of population. It is true that public debt has increased 43 per cent, but this is by no means alarming, since the cost of new railways built since 1870 is £184,000,000 over the total of new debts. Moreover, the tangible increment of wealth since 1870

would suffice to pay off 88 per cent of all existing national debts. In like manner, although taxation has grown $22\frac{1}{2}$ per cent, which is more than the geometrical progression of earnings, the net balance per head of population is higher. The account stands, in millions sterling, as follows:—

	1870.	1880.	Ratio of increase.
Earnings . .	5652	6773	19·84 per cent
Taxes . .	794	971	22·34 „
Net earnings .	<u>4858</u>	<u>5802</u>	<u>19·42</u> „

If we distribute the earnings among the population of Christendom (as in Table 20), we find as follows:—

	Population.	Net Earnings.	Average per Head.
In 1870 .	375,129,000	£4,858,000,000	£12 15 6
In 1880 .	411,728,000	5,802,000,000	13 15 2

This shows, as far as money can, how much the condition of mankind has improved in the last ten years. Perhaps the secret of prosperity has been the development of the carrying trade, by land and sea, which has risen 53 per cent, and cheapened all the products of industry by placing the producer and consumer in closer relation than before.

The following observations may serve to elucidate the 27 Tables of which the present Balance-sheet is composed.

INDUSTRIES OF NATIONS.

(Tables 1, 2, and 3.)

In the 1st Table we find that the six industries which may be said to make up the week of human labour reach a total of $10\frac{1}{4}$ milliards sterling, showing an advance of $22\frac{1}{4}$ per cent since 1870. The figures, however, for France and Germany, are those that correspond to 1869, being the year before the war. At present Great Britain

holds the foremost place, but the United States will probably pass us in the ensuing decade ; in like manner Germany gives promise of getting ahead of France, and becoming the third of the great powers of industry. Europe is, meantime, losing weight in the balance of labour, as she counts for 2 per cent less in the aliquot parts (Table 3) than she did in 1870. This is due not only to the rise of the United States, but also to that of the British Colonies, which are already assuming the importance of kingdoms.

The 2d Table shows that the average product of human industry per head is over £25, a rise of 12 per cent since 1870. Even the countries that stand lowest, such as Russia, Italy, and Spain, with an average ranging from £11 to £15, show a satisfactory improvement. The advance in Great Britain is double the European average, the figures being as follow :—

	Industry per Head.		Advance.
	1870.	1880.	
Great Britain . . .	£53 13 0	£58 11 0	£4 18 0
Europe	21 2 0	23 4 0	2 2 0
United States . . .	38 9 0	40 1 0	1 12 0
The World	22 10 0	25 2 0	2 12 0

This Table must not be confounded with the earnings of nations, of which hereafter.

MANUFACTURES.

(Tables 4, 5, 6, and 7).

The 4th Table classifies manufactures under three heads, and shows their progress since 1870 as follows :—

	Increase.
Textiles	16·50 per cent
Hardware	44·35 „
Sundries	12·50 „
Total	18·60 „

The above is merely the increase in money value, but

the quantities produced show a much higher increment. For example (in Table 5), we see that the consumption of raw cotton and wool has risen 30 per cent. The rivalry between King Cotton and King Wool continues, with varying fortune, as appears from the following summary of textile manufactures:—

	1870.	1880.
Cotton Manufactures	£240,000,000	£285,000,000
Woollen „	246,000,000	278,000,000
Linen, Laces, Silks, etc.	162,000,000	220,000,000
Total	<u>£648,000,000</u>	<u>£783,000,000</u>

Although the United States appear as foremost among manufacturing nations, it is because flour, timber, etc., enter so largely into the lists for that country, and if we were to confine the term to textiles and hardware, Great Britain would be by far the first (see Table 4).

Table 6 shows how enormously the production of coal, iron, and steel, has increased since 1870. Great Britain still produces 45 per cent of the coal, 42 per cent of the iron, and 36 per cent of the steel that is consumed by the world.

Table 7 gives the production of wool and cotton in all countries, showing that the Australian clip has more than doubled since 1870, and that a similar increase has taken place in the cotton crop of the United States. There is altogether a rise of 330 million pounds, or 22 per cent, in wool, and 994 million pounds, or 37 per cent, in cotton, since 1870.

COMMERCE AND SHIPPING.

(Tables 8, 9, 10, 11, and 12.)

In the 8th Table we see that the trade of the world has risen £776,000,000 sterling, the principal items of increase being as follow:—

Great Britain . . .	£145,000,000
United States . . .	129,000,000
Germany . . .	114,000,000
Other nations . . .	388,000,000
	<u>£776,000,000</u>

The commerce of the civilised world at present reaches 2,749 millions : if India, W. Indies, etc., be included, the total will be (as in Table 8) 2,869,000,000. The average trade of Europe for the past ten years shows an adverse balance of 169,000,000 per annum, but this is only nominal, for, as exports gain 11·3 per cent by transshipment when they figure as imports, the real balance against Europe is only 67,000,000 per annum.

	Imports. Millions sterling.	Exports.		Millions £.	
		Value at shipment.	Value on arrival.	Surplus imports.	Surplus exports.
Great Britain . .	371	278	310	61	
Continent . .	691	615	685	6	
Europe . .	1062	893	995	67	
United States . .	110	121	135		25
Colonies, etc. . .	168	190	210		42
	<u>1340</u>	<u>1204</u>	<u>1340</u>		

Nobody has hitherto solved the riddle of the port entries of all nations having risen 61 per cent, while the shipping of all flags has increased only 2,541,000 tons, or 16 per cent. Some writers allow threefold carrying-power for steamers, which would be wholly inadequate to meet an increase of 61 per cent in the traffic of the seas. The port entries show that steamers make 15 trips, sailing vessels 3, in a year ; in other words that a steamer counts for fivefold. The reader will now easily comprehend Table 10, showing the difference between nominal tonnage and actual carrying-power. In 1870 the British flag stood for 51 per cent, in 1880 for 56 per cent, of the carrying-power

of the merchant shipping of the world. At present 76 per cent of all the merchandise borne on British bottom is carried by steamers, although only 63 per cent of the port entries of the United Kingdom corresponds to steamers. Taking the aggregate traffic of the high seas, we find that steamers carry 57 per cent, and sailing vessels 43 per cent of the total. The carrying-power of the world is now 82 tons per 1000 inhabitants, against 60 tons in 1870; that of Great Britain has in the same interval risen from 310 to 487 tons, being thus 6 times the average for all nations (Table 11). The 12th Table shows portentries.

INCREASE OF POPULATION.

(Table 13.)

In this Table, for the sake of comparison, Germany and France are supposed to have had the same limits in 1870 as at present, that is Alsace and Lorraine are included in the former country. The item of emigration from Turkey, and immigration into Austria, stands for the annexation of Bosnia, with 1,103,000 inhabitants. No allowance is made for Russian conquests, which were chiefly in Asia, and therefore outside the scope of the present balance-sheet, while the portion of Bessarabia that was annexed hardly compensated for the loss of life in the campaign. Europe had a surplus of $25\frac{1}{2}$ million births over deaths, but emigration reduced the actual increase to $22\frac{1}{4}$ millions. The Franco-German War cost 819,000 lives, the French loss being 70 per cent of the total. The increase of population in the United States exceeds the aggregate number of inhabitants in three kingdoms of Europe, namely, Holland, Denmark, and Portugal. Our Australian colonies have increased in double the ratio of the United States. There is also a remarkable rise in the

population of South Africa, but this is mainly the result of annexation and conquest.

RAILWAYS.

(Table 14.)

Mankind has built more than 100,000 miles of railway since 1870, at a cost of 1759 millions sterling, viz.—

	Miles.	Cost.	Per mile.
Great Britain	2,159	£187,000,000	£86,600
Continent	37,698	783,000,000	20,800
<hr/>			
Europe	39,857	£970,000,000	£24,300
United States	41,883	578,000,000	13,800
Colonies, etc.	18,747	211,000,000	11,230
<hr/>			
The World	100,487	£1,759,000,000	£17,520

Although British railways have been the most costly, they render more service for capital expended than those of other nations; thus for every £100 of capital invested, we carry yearly 120 passengers or tons of cargo, against 54 in the rest of Europe, 41 in the United States, and 25 in other countries. Ten years ago the ratio was 98 in Great Britain, 61 in the Continent of Europe, and 62 in the United States. If we consider a passenger and a ton of merchandise equal, and add them together, the traffic of the world will be as follows:—

	1870.	1879.
Great Britain	518,000,000	844,000,000
Continent	617,000,000	943,000,000
<hr/>		
Europe	1,135,000,000	1,787,000,000
United States	260,000,000	408,000,000
Colonies, etc.	50,000,000	95,000,000
<hr/>		
	1,445,000,000	2,290,000,000

The traffic returns per mile show a decline of 4 per cent for passengers and 22 per cent for goods since 1870, viz.—

	1870.	1879.
Passengers per mile . . .	7,146	6,822
Goods, tons „ . . .	4,585	3,597
Total	<u>11,731</u>	<u>10,419</u>

Thus, taken collectively, there is a decline of 11 per cent.

TELEGRAPHS.

Table 15 shows an increase of 280,000 miles, say 90 per cent on 1870, in the existing lines and cables, as also 123 per cent in the number of messages. The Swiss are the only people who send more telegrams per head than the British. Our traffic has trebled since the reduction of tariff in 1870. There is much need of a Berne Convention to fix an uniform tariff for all messages over sea.

MONEY.

Table 16 shows that the abundance of money has little to do with national wealth or prosperity. Spain has most money compared with national industry, England the least. Switzerland has most coin per inhabitant. The paper-money of the world has risen from 592 millions sterling in 1870 to 799 millions in 1880, an increase of 34 per cent. The actual amount of gold and silver coin is 823 millions sterling, the former being 68 per cent of the total.

Table 17 shows the production of gold and silver since 1870, and the quantities minted, the latter being 45 per cent in excess of the former!

This has given rise to an ungrounded alarm that the world will soon come short of gold, since the mines are rather declining than increasing in their yield, while commerce and population are growing every year. It appears

indeed that the gold minted since 1870 (Table 17) has been 333 millions, or 132 millions in excess of what the mines produced ; but we find from experience that all gold coin is reminted or at least melted down in forty years, for the amount of such coin last year existing in Europe, America, and Australia was only 554 millions, that is 430 millions over the stock of 1848, although 960 millions had been minted in the interval. In other words one-fourth of existing coinage disappears or is transformed in ten years, so that the net increase since 1870 has been only 210 millions, or 5 per cent over the yield of the mines.¹ But supposing that we have to go on coining 20 millions per annum, this will be five millions sterling more than the world produces. As the stock of gold above ground, however, is 8840 tons (as shown from the tables of Humboldt, Rossi, Michel Chevalier, etc.), and as all the gold coin only amounts to 4100 tons, it is clear that the uncoined bullion will suffice to cover the above deficit for 140 years to come. In the meantime, as nations become civilised, cheques take the place of coin, and hence the world may in another century use as little gold as we do in England, where Sir John Lubbock says only 10s. of coin are employed for every £100 of business. If we compare the commerce and money of all nations, as in Tables 8 and 16, and except India as uncertain, we shall find the world's trade in 1880 was transacted thus :—

		Aliquot parts.
Gold coin . . .	£554,000,000	19·93
Silver „ . . .	269,000,000	9·61
Bank-notes . . .	773,000,000	27·81
Cheques, etc. . .	1,186,000,000	42·65
Total . . .	<u>£2,782,000,000</u>	<u>100·00</u>

¹ The mutation or reminting of gold between 1870 and 1880 would be 83 millions ordinary, and 40 millions of French coin recast by Germany—in all, 123 millions sterling.

WEALTH OF NATIONS.

Tables 18 and 19 may help to show how groundless is the impression that the nations are plunging into debt and hastening to bankruptcy. The total of new national debts since 1870 is only £1,575,000,000 sterling, or (as already shown) £184,000,000 less than the cost of new railways in that period; in fact the new debts are hardly 34 per cent of the increase of wealth, which has been steady and progressive. It is to be noted that Table 18 in the wealth of Germany contains £280,000,000 for Alsace and Lorraine; in like manner Austria has £55,000,000 for Bosnia. The increase in the United States has been prodigious, and yet the ratio per inhabitant is not so high as in 1870. The same occurs in the case of Australia.

Tables 20 and 21 treat of earnings and taxation, the latter including all manner of taxes. The average net earnings of mankind have risen nearly £1 since 1870, as shown in the following summary:—

		1870.	1880.
<i>Great Britain—</i>			
Earnings . . .		£30 10 6	£33 10 4
Taxes . . .		3 13 5	3 19 9
Net Income . . .		<u>£26 17 1</u>	<u>£29 10 7</u>
<i>Europe—</i>			
Earnings . . .		£13 14 2	£14 13 6
Taxes . . .		1 18 7	2 7 0
Net Income . . .		<u>£11 15 7</u>	<u>£12 6 6</u>
<i>United States—</i>			
Earnings . . .		£27 11 8	£27 18 4
Taxes . . .		3 13 10	2 12 7
Net Income . . .		<u>£23 17 10</u>	<u>£25 5 9</u>
<i>The World—</i>			
Earnings . . .		£14 17 10	£16 2 1
Taxes . . .		2 2 4	2 6 11
Net Income . . .		<u>£12 15 6</u>	<u>£13 15 2</u>

Although the net income of the world has increased, the relative burthen of taxation is heavier now than it was in 1870, Table 21 showing the following ratio:—

		Taxation compared with Income.	
		1870.	1880.
Great Britain . . .	11·92 per cent	11·88 per cent	
Europe . . .	13·87 „	15·38 „	
United States . . .	13·39 „	9·21 „	
The World . . .	14·05 „	14·34 „	

Table 22 shows the aliquot parts of capital, debt, earnings, and taxation, for all countries.

ART OF WAR.

Table 23 shows the armaments by land and sea of all nations, in the year 1869, before the Franco-German war, and at present. Europe has now fewer men under arms, but the annual expenditure for armies and navies is 25 per cent higher, probably owing to costly artillery.

Table 24 is a further study on military expenditure, placing it before the reader in various points of view for comparison. It will be observed that the British soldier now costs £101 per annum, against £98 in 1869, but the burthen of the military and naval expenditure on each inhabitant of Great Britain is shown to be less now than eleven years ago, although for the world it is higher, viz.—

		1869.	1880.
Great Britain . . .	16s. 8d. per inhabitant	15s.	
Europe . . .	7s. 10d. „	9s. 2d.	
United States . . .	11s. „	4s. 6d.	
The World . . .	8s. 1d. „	8s. 5d.	

The armaments of Europe at present absorb nearly 3 per cent (2·98) of the total earnings of the nations, as compared with 2·83 in 1869. That is, the burthen is relatively 5 per cent heavier than it was eleven years ago.

FOOD SUPPLY.

Tables 25 and 26 show how much food is consumed in each country, and how much produced, also the ratio per inhabitant, etc. Of course all kinds of grain are included, as even what is used for cattle serves ultimately to produce food for the population. Potatoes are counted for grain on the ordinary estimate of four bushels equal to one of wheat.

Europe has a deficit of 380 million bushels of grain, and 853,000 tons of meat yearly. The United States have a surplus of 370 million bushels grain, and 1,076,000 tons meat. Taking the world on the whole, we find 22 million bushels over consumption, and as for meat, there is a surplus of 2,144,000 tons, that is enough for 42 millions of people more than at present. The consumption of food in Great Britain and United States is much over the European average per inhabitant, viz.—

	Grain, bushels.	Meat, lbs.
Great Britain	20·02	119·10
United States	40·66	120·00
France	24·02	81·88
Germany	23·71	84·51
Europe	17·66	57·50
World	20·19	68·87

Table 26 shows that Great Britain and Belgium are the countries most dependent on imported food for their supplies.

Table 27 is a *coup d'œil* at the agricultural and pastoral industries of the world.

TABLES.

TABLE I.
INDUSTRIES OF NATIONS, IN MILLIONS STERLING.

In 1870 and 1880.

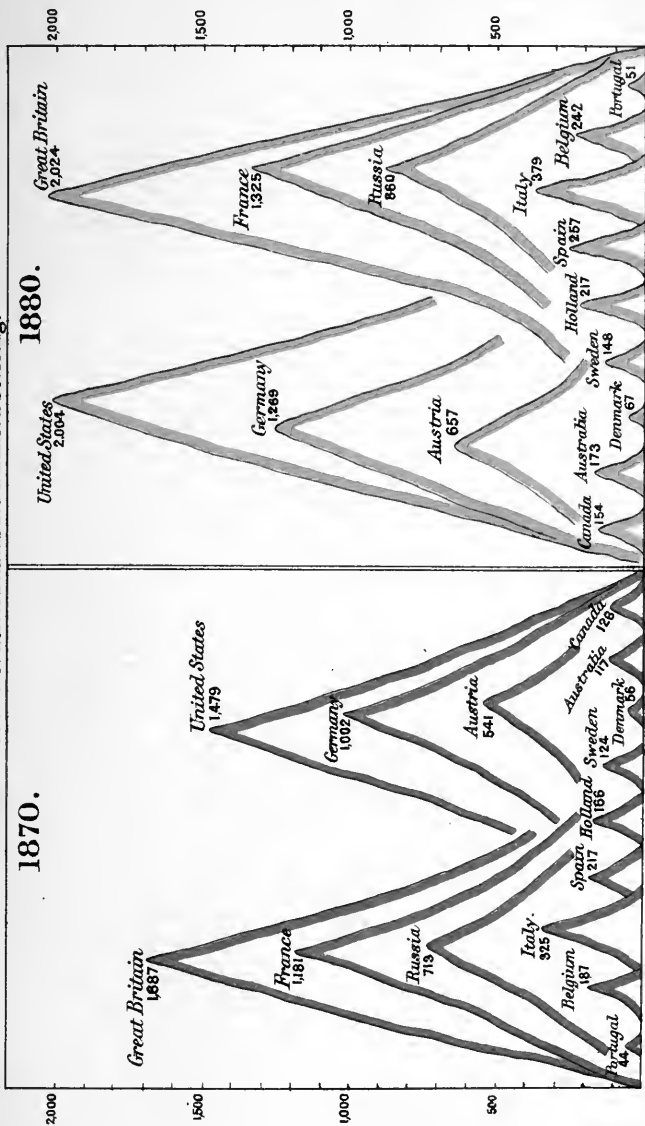
	Commerce.		Manufac- tures.		Mining.		Agriculture.		* Carrying Trade, etc.	Banking.		Total.		Increase.
	1870.	1880.	1870.	1880.	1870.	1880.	1870.	1880.		1870.	1880.	1870.	1880.	
Great Britain	547	692	642	758	46	65	260	240	112	161	80	1687	2024	337
France	249	332	439	485	9	12	412	400	42	62	30	1181	1325	144
Germany	270	384	341	427	14	21	310	340	42	69	25	1002	1269	267
Russia	110	191	205	229	8	11	350	370	28	44	12	713	860	147
Austria	83	140	183	206	5	7	240	263	16	24	14	541	657	116
Italy	74	96	103	115	2	2	130	145	11	15	5	325	379	54
Spain	31	38	77	88	5	7	95	109	7	12	2	217	257	40
Belgium	64	103	73	85	6	8	34	35	7	8	3	187	242	55
Holland	71	110	37	42	0	0	41	46	4	5	13	166	217	51
Swed. and Nor.	27	36	36	40	2	2	47	52	9	15	3	124	148	24
Denmark	15	19	14	18	0	0	25	27	1	2	1	56	67	11
Portugal	10	13	10	11	0	0	23	25	0	1	1	44	51	7
Turkey, etc.	83	63	80	68	0	0	53	47	3	6	3	222	187	0
Europe	1634	2217	2240	2572	97	135	2020	2099	282	424	192	6465	7683	1218
United States	172	301	682	888	38	72	415	525	132	166	40	1479	2004	525
Australia	57	89	9	13	9	6	35	52	1	3	5	116	173	57
Canada	33	35	35	46	0	0	51	60	5	9	2	126	154	28
S. Africa	8	17	2	3	2	4	5	7	0	0	0	17	31	14
S. America	85	90	18	22	7	8	70	80	3	6	4	187	211	24
World	1989	2749	2986	3544	153	225	2596	2823	423	608	243	8390	10,256	1866

* A distinct statement of Carrying-trade will be found in Table 9.

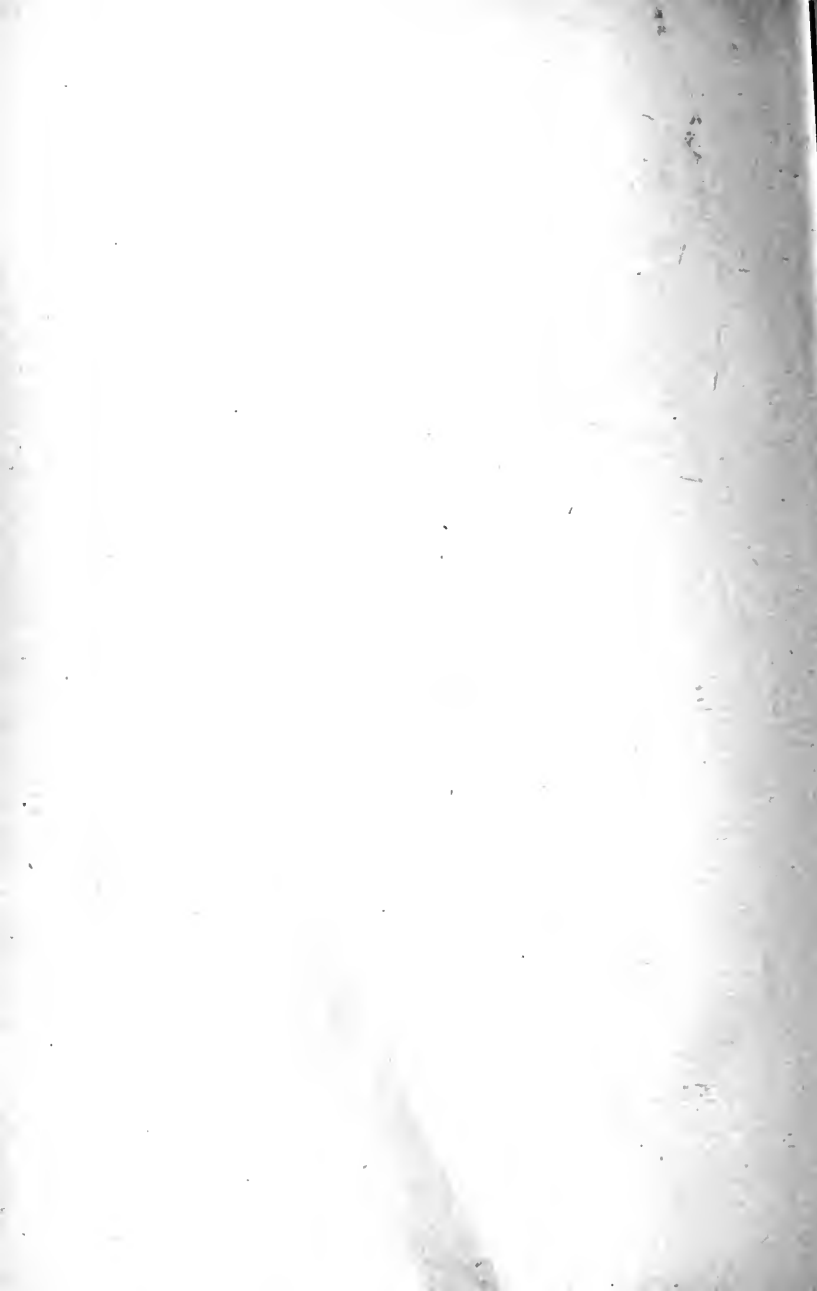
INDUSTRIES OF ALL NATIONS.

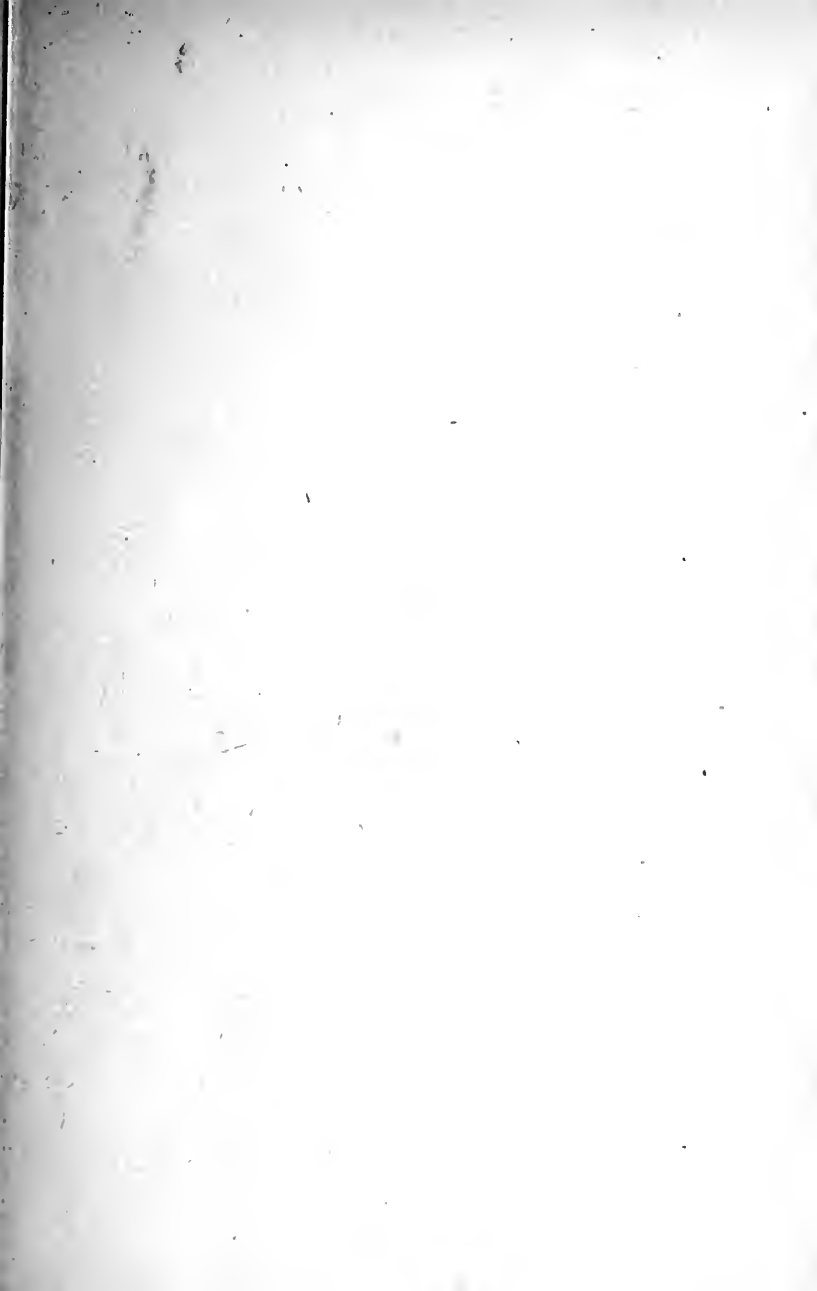
Each foot of elevation stands for a million sterling.

A.



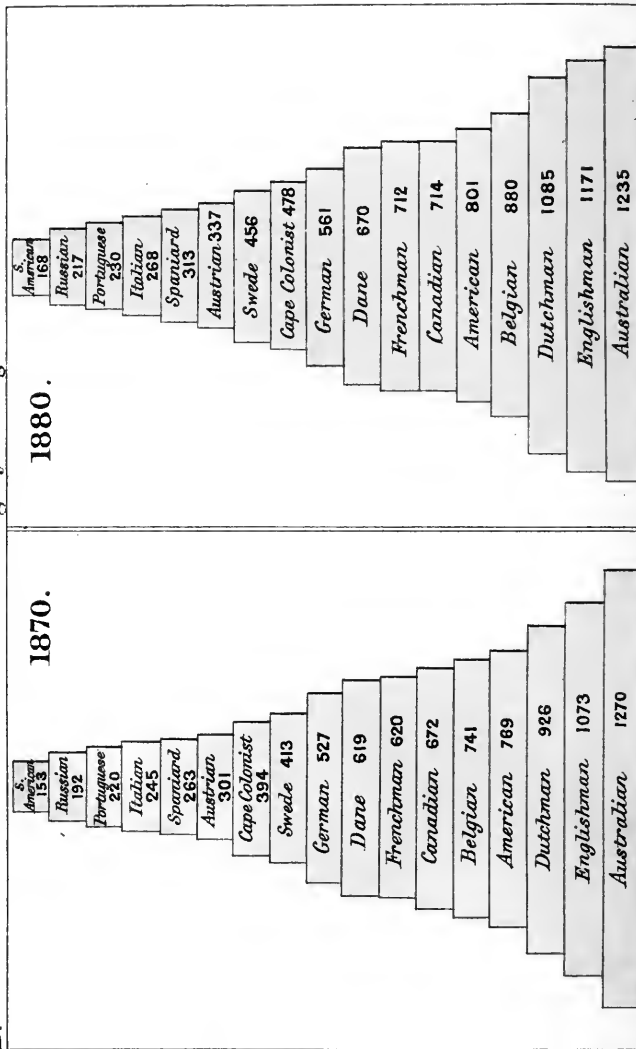
See Table I.





B. RATIO OF AGGREGATE INDUSTRIES FOR POPULATION, PER ANNUM.

The Numbers signify shillings.



See Table 2.

Note: Cape Colonist stands for all British S. Africa.

TABLE 2.
INDUSTRIES COMPARED WITH POPULATION.
Shillings per head in 1870 and 1880.

	Commerce.		Manufac- tures.		Mining.		Agri- culture.		Carrying Trade, etc.		Banking.		Total.		Difference.
	1870.	1880.	1870.	1880.	1870.	1880.	1870.	1880.	1870.	1880.	1870.	1880.	1870.	1880.	
Great Britain.	349	398	408	440	29	38	165	139	71	93	51	63	1073	1171	+ 98
France . . .	129	176	231	263	5	6	216	216	23	33	16	18	620	712	+ 92
Germany . . .	142	170	180	189	7	9	163	151	22	29	13	13	527	561	+ 34
Russia . . .	31	48	54	61	2	3	97	92	5	9	3	4	192	217	+ 25
Austria . . .	46	72	102	105	2	3	133	135	10	13	8	9	301	337	+ 36
Italy . . .	56	70	78	81	1	1	97	101	9	11	4	4	245	268	+ 23
Spain . . .	39	46	93	107	6	9	115	132	7	15	3	4	263	313	+ 50
Belgium . . .	256	374	284	310	24	28	136	125	24	29	12	12	741	880	+ 139
Holland . . .	398	550	206	210	0	0	228	230	22	25	72	70	926	1085	+ 159
Swed. and Nor.	87	111	120	123	7	7	157	160	34	45	10	10	415	456	+ 41
Denmark . . .	166	192	155	176	0	0	277	272	11	20	10	10	619	670	+ 51
Portugal . . .	51	58	51	52	0	0	115	114	1	3	2	3	220	230	+ 10
Turkey, etc. . .	57	43	60	52	0	0	42	41	4	6	3	3	166	145	- 21
Europe . . .	107	131	147	159	6	8	132	128	18	26	12	14	422	464	+ 42
United States	89	120	354	355	20	29	216	210	69	66	21	21	769	801	+ 32
Australia . . .	626	644	98	92	99	43	380	370	12	21	54	65	1269	1235	- 34
Canada . . .	176	160	186	214	0	0	268	280	31	42	11	18	672	714	+ 42
Cape G. Hope	291	298	44	60	72	61	196	203	0	0	0	0	603	622	+ 19
S. America . .	68	71	15	18	6	7	58	64	3	4	3	4	153	168	+ 15
THE WORLD . .	106	131	160	176	8	11	141	140	22	29	13	15	450	502	+ 52

TABLE

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TABLE 4.
MANUFACTURES OF ALL NATIONS, IN MILLIONS STERLING.
In 1870 and 1880.

	Textiles.		Hardware.		Sundries.		Total.		Increase.
	1870.	1880.	1870.	1880.	1870.	1880.	1870.	1880.	
Great Britain	194	213	124	155	324	390	642	758	116
France	127	134	32	41	280	310	439	485	46
Germany	70	95	41	62	230	270	341	427	86
Russia	45	54	12	15	148	160	205	229	24
Austria	32	36	10	15	141	155	183	206	23
Italy	18	25	4	5	81	85	103	115	12
Spain	17	22	5	6	55	60	77	88	11
Belgium	28	30	9	13	36	42	73	85	12
Holland	5	6	2	3	30	33	37	42	5
Scandinavia	7	7	5	7	41	44	53	58	5
Switz., Greece, etc. .	5	5	3	3	79	71	87	79	...
Europe	548	627	247	325	1445	1620	2240	2572	332
United States . . .	88	115	55	109	539	664	682	888	206
British Colonies, etc.	30	34	14	20	20	30	64	84	20
THE WORLD	666	776	316	454	2004	2314	2986	3544	558

TABLE 5.
CONSUMPTION OF COTTON, WOOL, FLAX, JUTE, ETC.

	Cotton, million lbs.		Wool, million lbs.		Flax, jute, etc. million lbs.		Total, million lbs.		Increase, mill. lbs.
	1870.	1880.	1870.	1880.	1870.	1880.	1870.	1880.	
Great Britain	1101	1404	342	401	660	766	2103	2571	468
France	210	270	292	350	360	402	862	1022	160
Germany	268	390	155	265	226	305	649	960	311
Russia	93	133	130	165	170	220	393	518	125
Austria	103	130	70	80	90	95	263	305	42
Italy	55	90	30	34	15	25	100	149	49
Spain	60	76	35	40	14	26	109	142	33
Belgium	36	48	94	105	146	148	276	301	25
Holland	11	13	6	7	50	55	67	75	8
Scandinavia	20	25	23	23	17	19	60	67	7
Switz., Greece, etc. .	78	70	20	20	18	20	116	110	...
Europe	2035	2649	1197	1490	1766	2081	4998	6220	1222
United States . . .	530	911	204	258	54	23	788	1192	404
Colonies, etc. . . .	70	105	30	35	50	50	150	190	40
TOTAL	2635	3665	1431	1783	1870	2154	5936	7602	1666

C. CONSUMPTION OF COTTON, WOOL, FLAX, JUTE AND HEMP.
The Numbers stand for million lbs.

1870.																	
Great Britain 2100		France 860		United States 790		Germany 650		Russia 390									
						Belgium 270		Austria 260									
						Spain 110		Italy 100									
						Sweden 70		Denmark 60									
Scandinavia																	
1880.																	
Great Britain 2570		United States 1190		France 1020		Germany 980		Russia 520									
						Austria 305		Belgium 300									
						Italy 150		Spain 140									
						Sweden 75		Denmark 67									
Scandinavia																	

See Table 5.

TABLE 6.
PRODUCTION OF COAL, IRON, AND STEEL.

	Coal, Million Tons.			Iron, Thousand Tons.			Steel, Thousand Tons.		
	1870.	1879.	Increase.	1870.	1878-79.	Increase.	1870.	1878.	Increase.
Great Britain . .	110	135	25	5,230	7,300	2070	245	1020	775
United States . .	25	55	30	1,580	3,100	1520	40	780	740
Germany	30	53	23	1,322	3,668	2346	170	466	296
France	13	17	4	1,230	1,520	290	90	260	170
Austria	8	12	4	280	470	190	22	97	75
Belgium	12	15	3	260	420	160	10	88	78
Russia, Swed., etc.	10	14	4	500	755	255	15	40	25
Total	208	301	93	10,402	17,233	6831	592	2751	2159

TABLE 7.
PRODUCTION OF WOOL AND COTTON.

WOOL.

	Million lbs.		Ratio of total.	
	1870.	1879.	1870.	1879.
Australia	193	392	13·43	22·14
River Plate . . .	198	240	13·78	13·56
South Africa . .	41	46	2·84	2·70
United States . .	165	208	11·46	11·74
Great Britain . .	170	160	11·80	9·03
Continent	640	670	44·55	37·83
India, etc. . . .	30	51	2·14	3·00
	1437	1767	100·00	100·00

COTTON.

	Million lbs.		Ratio of Total.	
	1870.	1880.	1870.	1880.
United States . .	1540	2773	57·62	75·68
India	535	363	20·04	9·91
Egypt	480	450	17·96	12·28
Brazil, etc. . . .	115	78	4·38	2·13
	2670	3664	100·00	100·00

TABLE 8.
INCREASE OF COMMERCE, AND BALANCE OF TRADE.

	Gross Trade. Million £.		Increase. Million £.	Average of Ten Years.		Current of Bullion.	
	1870.	1880.		Imports. Million £.	Exports. Million £.	Surplus imported since 1870.	Surplus exported since 1870.
Great Britain	547	692	145	371	278	£25,175,000	—
France	249	332	83	156	138	136,200,000	—
Germany	270	384	114	168	159	?	?
Russia	110	191	81	62	56	—	£20,300,000
Austria	83	140	57	72	66	—	1,400,000
Italy	74	96	22	51	47	—	520,000
Holland	71	116	45	49	39	10,600,000	—
Belgium	64	109	45	51	40	45,580,000	—
Spain and Portugal	41	51	10	24	22	31,300,000	—
Scandinavia	42	55	13	32	25	3,800,000	—
Turkey, etc.	83	63	0	26	23	—	—
Europe	1634	2229	595	1062	893	£230,435,000	—
United States	172	301	129	110	121	—	£49,600,000 *
Australia	57	89	32	41	39	—	46,450,000
Canada	33	35	2	18	15	—	1,150,000
South Africa.	8	17	9	4	5	1,875,000	—
India	85	99	14	35	57	68,870,000	—
West Indies, etc.	19	21	2	10	10	430,000	—
South America	85	90	5	42	46	—	78,500,000
World	2093	2881	788	1322	1186	£126,890,000	—

* Down to 1878 the United States had exported 78 millions sterling; but in the years 1879 and 1880 the net importation was 284 millions—namely 14 and 14½ respectively. On the other hand, Great Britain no longer imports bullion, but exported 7 millions since January 1879.

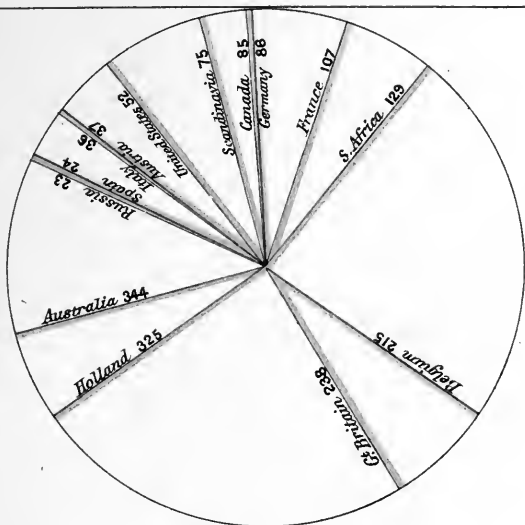
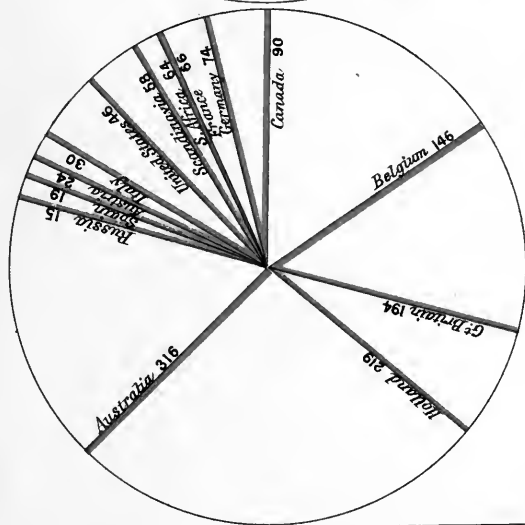
COMMERCE OF ALL NATIONS.

Ratio of Imports per Inhabitant, in shillings.

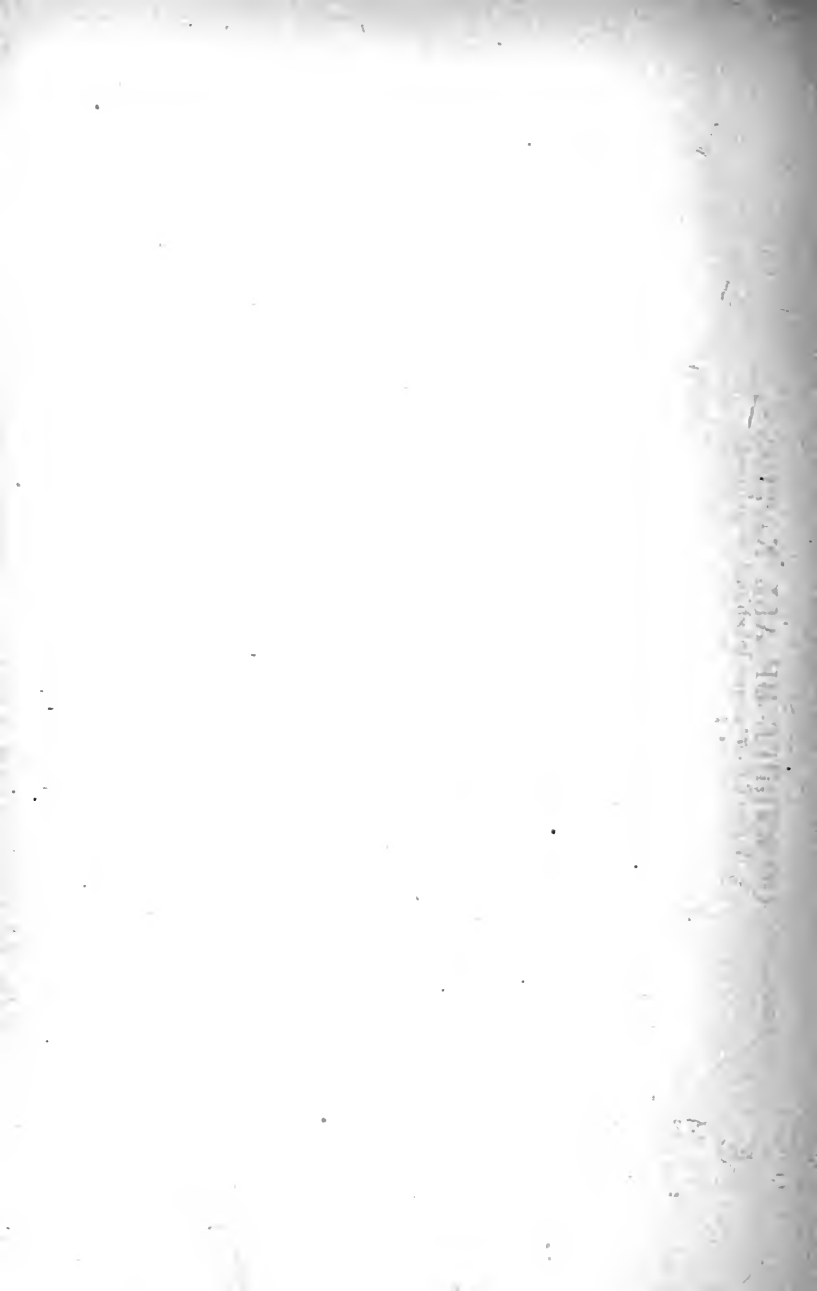
D.

1870.

1880.



See Table 8.

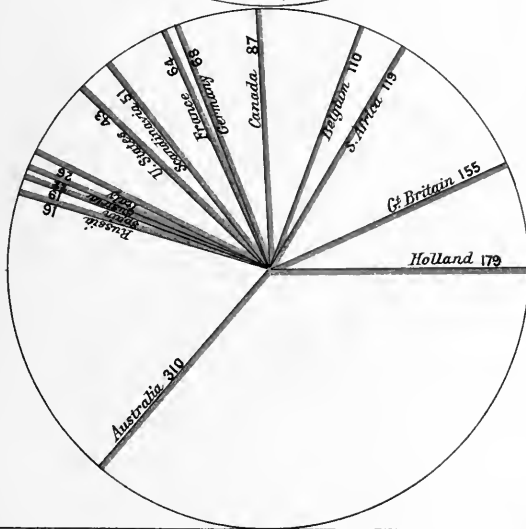


COMMERCE OF ALL NATIONS.

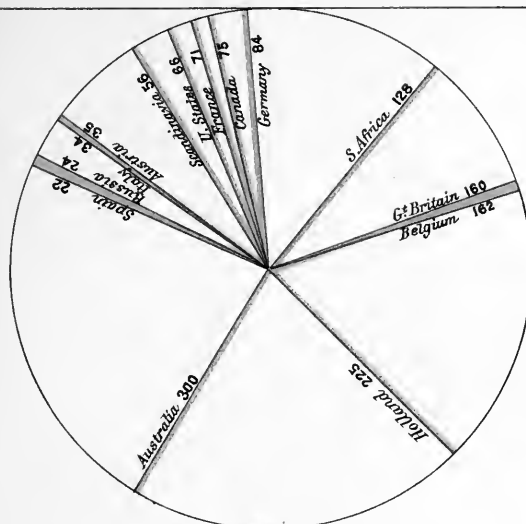
Ratio of Exports per Inhabitant, in shillings.

E.

1870



1880.



See Table 8.

TABLE 9.
CARRYING-TRADE, IN POUNDS STERLING.

	Railways, 000's omitted.		Increase, 000's omit'd.	Shipping, 000's omitted.		Increase, 000's omit'd.	Total, 000's omitted.		Increase 000's omit'd.	Ratio of Increase. Per cent.
	1870.	1879-80.		1870.	1879.		1870.	1879.		
Great Britain . . .	£43,417	£62,800	£19,383	£34,870	£58,390	£23,520	£78,287	£121,190	£42,903	55·00
Ireland . . .	24,890	40,940	16,050	5,640	6,920	1,280	30,530	47,860	17,330	56·45
Germany . . .	28,730	52,320	23,590	4,550	6,410	1,860	33,280	58,730	25,450	76·40
Austria . . .	16,140	30,240	14,100	1,880	3,270	1,390	18,020	33,510	15,490	86·05
Prussia . . .	13,234	21,036	7,802	1,540	1,980	440	14,774	23,016	8,242	55·66
France . . .	4,780	6,520	1,740	3,430	4,460	1,030	8,210	10,980	2,770	33·75
Spain . . .	3,310	5,240	1,930	1,980	3,480	1,500	5,290	8,720	3,430	64·60
Portugal . . .	4,460	5,350	890	233	920	687	4,693	6,270	1,577	33·55
Denmark and Norway . . .	987	2,100	1,113	1,615	1,928	313	2,602	4,028	1,426	54·85
Sweden . . .	1,070	2,240	1,170	4,910	9,215	4,305	5,980	11,455	5,475	91·25
Belgium . . .	320	670	350	740	1,510	770	1,060	2,180	1,120	105·66
Hungary . . .	550	830	280	140	184	44	690	1,014	324	47·00
Russia, Greece, etc. . .	1,600	2,800	1,200	1,650	1,750	100	3,250	4,550	1,300	40·00
Switzerland . . .	£143,488	£233,086	£89,598	£63,178	£100,417	£37,239	£206,666	£333,503	£126,837	61·27
United States . . .	84,167	110,240	26,073	30,450	31,150	700	114,617	141,390	26,773	23·28
Italy . . .	1,150	3,970	2,820	500	750	250	1,650	4,720	3,070	186·00
Canada . . .	1,210	3,000	1,790	3,870	5,380	1,510	5,080	8,380	3,300	65·00
South Africa . . .	...	600	600	20	24	4	20	624	604	...
South America . . .	2,700	5,800	3,100	1,600	2,100	500	4,300	7,900	3,600	84·00
WORLD . . .	£232,715	£356,696	£123,981	£99,618	£139,821	£40,203	£332,333	£496,517	£164,184	49·20

NOTE.—The railway earnings are from latest returns, and the shipping is estimated to earn 70 shillings per annum on each ton of carrying power.

TABLE 10.
CARRYING-POWER ON SEA.

	Carrying power—Tons.		Increase.	Nominal Tonnage.		Increase.	Ratio of Goods carried by steamer in 1879.
	1869.	1879.		1869.	1879.		
United Kingdom . . .	9,520,000	16,630,000	7,110,000	5,714,000	6,580,000	864,000	76 per cent.
Colonial . . .	1,825,000	2,380,000	555,000	1,458,000	1,720,000	262,000	15 "
British . . .	11,345,000	19,010,000	7,665,000	7,172,000	8,300,000	1,128,000	68 "
Swedish and Norwegian . . .	1,405,000	2,621,000	1,216,000	1,292,000	2,083,000	791,000	26 "
German . . .	1,310,000	1,950,000	640,000	982,000	1,169,000	187,000	54 "
French . . .	1,598,000	1,960,000	362,000	1,072,000	936,000	—	63 "
Italian . . .	975,000	1,315,000	340,000	952,000	1,030,000	78,000	25 "
Spanish . . .	565,000	1,005,000	440,000	385,000	461,000	76,000	68 "
Russian . . .	524,000	935,000	411,000	380,000	650,000	270,000	37 "
Dutch . . .	460,000	568,000	108,000	390,000	342,000	—	50 "
Austrian . . .	440,000	565,000	125,000	290,000	330,000	40,000	51 "
Danish . . .	212,000	432,000	220,000	178,000	252,000	74,000	53 "
Greek . . .	355,000	295,000	—	350,000	260,000	—	14 "
Belgian . . .	67,000	262,000	195,000	33,000	61,000	28,000	96 "
European . . .	19,256,000	30,918,000	11,662,000	13,476,000	15,874,000	2,398,000	59 "
United States * . .	2,454,000	2,315,000	—	1,566,000	1,629,000	63,000	37 "
Brazilian, etc. etc. . .	670,000	850,000	180,000	530,000	610,000	80,000	25 "
THE WORLD . . .	22,380,000	34,083,000	11,703,000	15,572,000	18,113,000	2,541,000	57 "
* U. States (sea and home)	8,710,000	8,895,000	185,000	4,146,000	4,213,000	67,000	66 "

Carrying-power includes extra allowance for steamers, as 5 to 1 compared with sailing-vessels, as explained in the text.

F. CARRYING TRADE OF THE WORLD BY SEA.

Tons of merchandise carried. The figures indicating as many million tons.

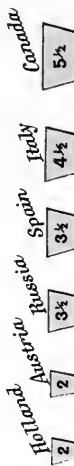
1870.



Great Britain

30

1880.



Great Britain

52

See Tables 9 and 10.

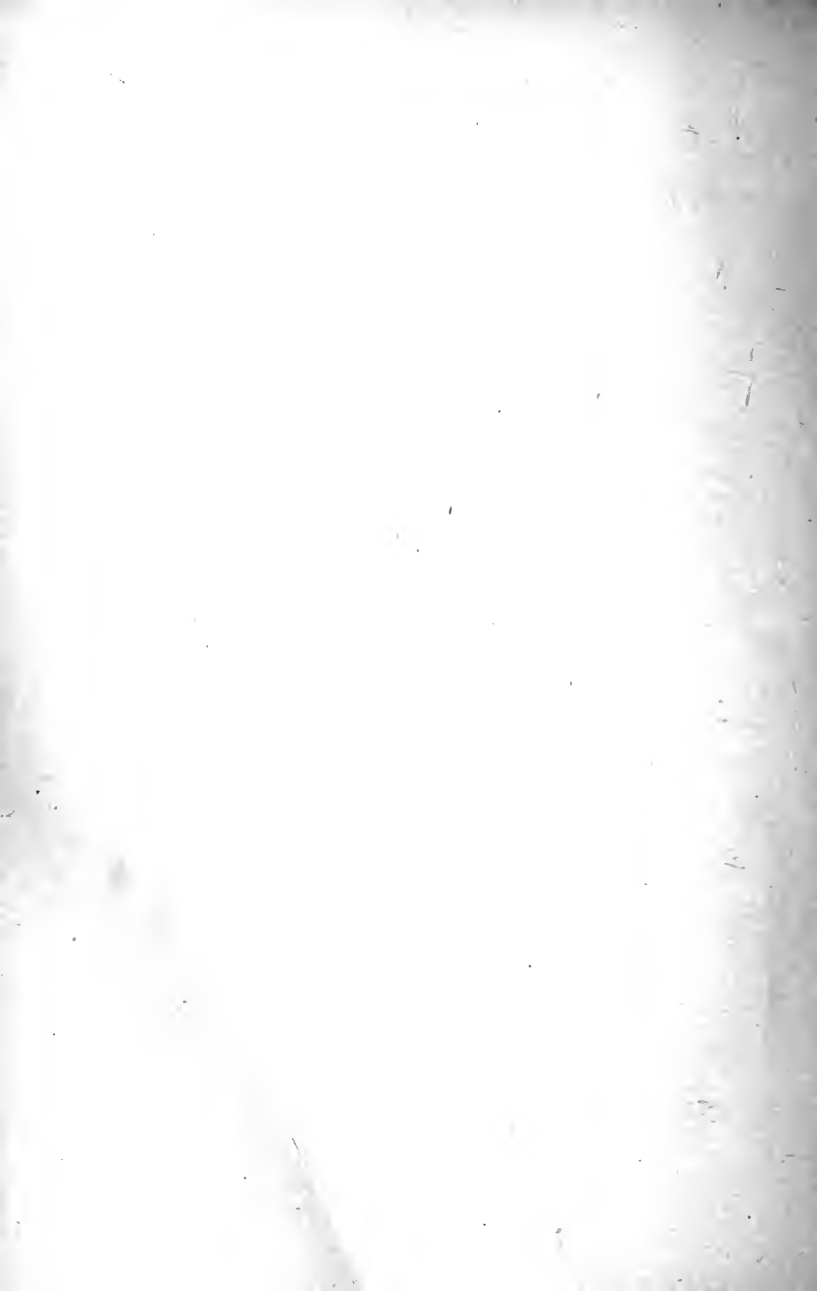


TABLE 11.
CARRYING-POWER ON SEA COMPARED WITH
TRADE AND POPULATION.

	For £1000 of trade.		Difference.	Tons per 1000 inhab.		Difference.
	1870.	1880.				
				1870.	1880.	
United Kingdom	17 tons.	24 tons.	+ 7 tons.	310	487	+177 tons.
British Colonies .	8 „	8 „	—	9	11	+ 2 „
France	6 „	6½ „	+ ½ „	44	53	+ 9 „
Germany	5 „	5¼ „	+ ¼ „	34	45	+ 11 „
Russia	4½ „	5 „	+ ½ „	7	11½	+ 4½ „
Austria	3½ „	3½ „	—	12	14	+ 2 „
Italy	13 „	13¼ „	+ ¼ „	37	46	+ 9 „
Spain	18 „	30 „	+12 „	35	62	+ 27 „
Holland	7 „	5½ „	—	128	142	+ 14 „
Belgium	1 „	2½ „	+ 1½ „	13	47	+ 34 „
Sweden and Nor- way	54 „	62 „	+ 8 „	234	401	+167 „
Denmark	14 „	23 „	+ 9 „	118	216	+ 98 „
Greece	65 „	35 „	—	240	176	—
U. States (sea) .	14½ „	8 „	—	64	47	—
Do. (sea and in- land). . . .	50½ „	29½ „	—	229	181	—
Brazilian, etc. .	8 „	10 „	+ 2 „	27	34	+ 7 „
THE WORLD .	11 „	12½ „	+ 1½ „	60	82	+ 22 „

TABLE 12.
PORT ENTRIES OF ALL NATIONS.
Increase in Ten years.

	Tons entered.		Increase.	Tons per 100 inhabitants.		Steam ratio.	
	1868-69.	1878-79.		1868-69.	1878-79.	1868-69.	1878-79.
United Kingdom . .	17,198,000	26,033,000	8,835,000	51	75	41 per cent.	63 per cent.
British Colonies . .	14,250,000	25,065,000	10,815,000	7	12	?	?
France	6,802,000	11,348,000	4,546,000	19	30	45 "	66 "
Germany	3,920,000	6,971,000	3,051,000	10	15	46 "	63 "
Russia	2,910,000	6,585,000	3,675,000	4	8	—	70 "
Austria	3,130,000	5,003,000	1,873,000	9	13	50 "	76 "
Italy	3,630,000	3,980,000	350,000	14	14	51 "	66 "
Spain	1,640,000	1,942,000	302,000	10	12	—	—
Belgium	1,330,000	3,185,000	1,855,000	27	58	48 "	75 "
Holland	1,610,000	3,110,000	1,500,000	45	79	47 "	71 "
Sweden	1,984,000	3,320,000	1,336,000	47	72	—	40 "
Norway	1,540,000	1,940,000	400,000	90	95	10 "	23 "
Denmark	744,000	1,983,000	1,239,000	41	101	—	55 "
Greece	1,410,000	1,980,000	570,000	97	116	56 "	70 "
United States . . .	8,050,000	16,193,000	8,143,000	21	30	32 "	36 "
Brazil, etc. etc. . .	7,200,000	9,000,000	1,800,000	22	36	—	—
TOTAL	77,348,000	127,638,000	50,290,000	22	32	39 "	57 "

TABLE 13.
INCREASE OF POPULATION SINCE 1870.

	Population in 1870.	Excess of Births over Deaths.	Net Emigration.	Net Immigration.	Population in 1880.	Increase.	Ratio of Increase.
Great Britain . . .	31,205,000	4,265,000	965,000	—	34,505,000	3,300,000	10·57
France . . .	36,554,000	722,000	110,000	—	37,166,000	612,000	1·67
Germany . . .	41,066,000	5,288,000	987,000	—	45,367,000	4,301,000	10·46
Russia (Europe) . . .	73,725,000	6,565,000	130,000	—	80,160,000	6,435,000	8·73
Austria . . .	35,904,000	2,168,000	—	1,103,000*	39,175,000	3,271,000	9·11
Italy . . .	26,639,000	2,053,000	360,000	—	28,332,000	1,693,000	6·36
Spain . . .	16,551,000	386,000	305,000	—	16,632,000	81,000	0·50
Belgium . . .	5,052,000	527,000	—	40,000	5,619,000	567,000	11·23
Holland . . .	3,574,000	452,000	66,000	—	3,960,000	386,000	10·81
Sweden and Norway . . .	6,028,000	724,000	202,000	—	6,550,000	522,000	8·66
Denmark . . .	1,785,000	223,000	44,000	—	1,964,000	179,000	10·03
Portugal . . .	3,966,000	510,000	72,000	—	4,404,000	438,000	10·90
Turkey, etc. . .	23,648,000	1,645,000	1,205,000	—	24,088,000	440,000	2·01
Europe . . .	305,697,000	25,528,000	3,303,000	—	327,922,000	22,225,000	7·37
United States . . .	38,558,000	9,402,000	—	2,192,000	50,152,000	11,594,000	30·13
Australia . . .	1,829,000	450,000	—	584,000	2,863,000	1,034,000	56·50
Canada . . .	3,763,000	307,000	—	228,000	4,298,000	535,000	14·23
South Africa . . .	582,000	128,000	—	297,000	1,007,000	425,000	73·28
South America . . .	24,700,000	516,000	—	270,000	25,486,000	786,000	3·18
TOTAL . . .	375,129,000	36,331,000	—	—	411,728,000	36,599,000	9·76

* Annexation of Bosnia.

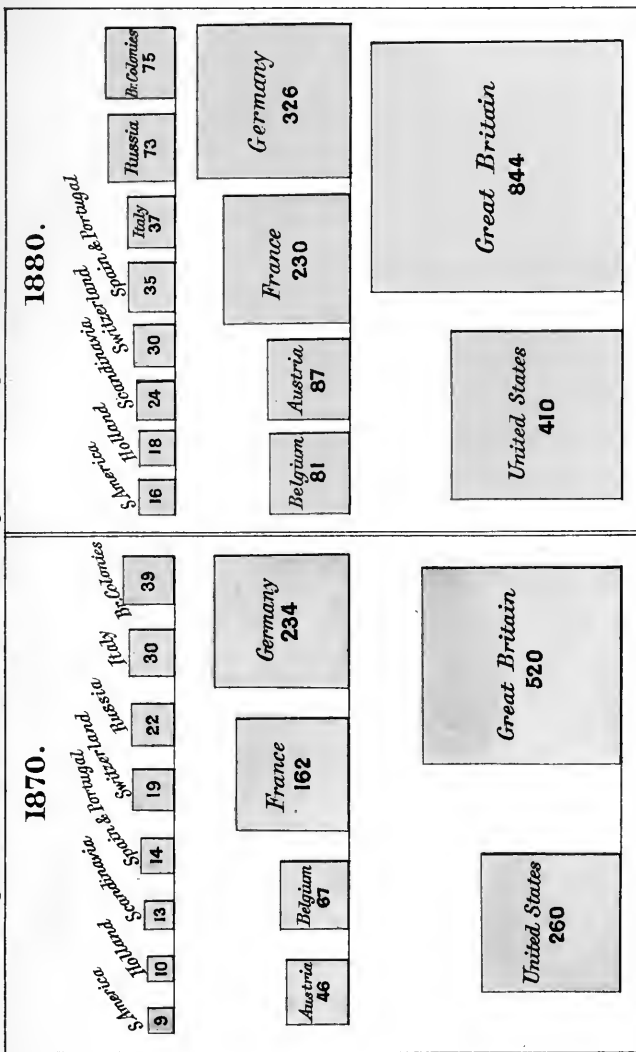
TABLE

INCREASE OF RAILWAYS SINCE 1870:

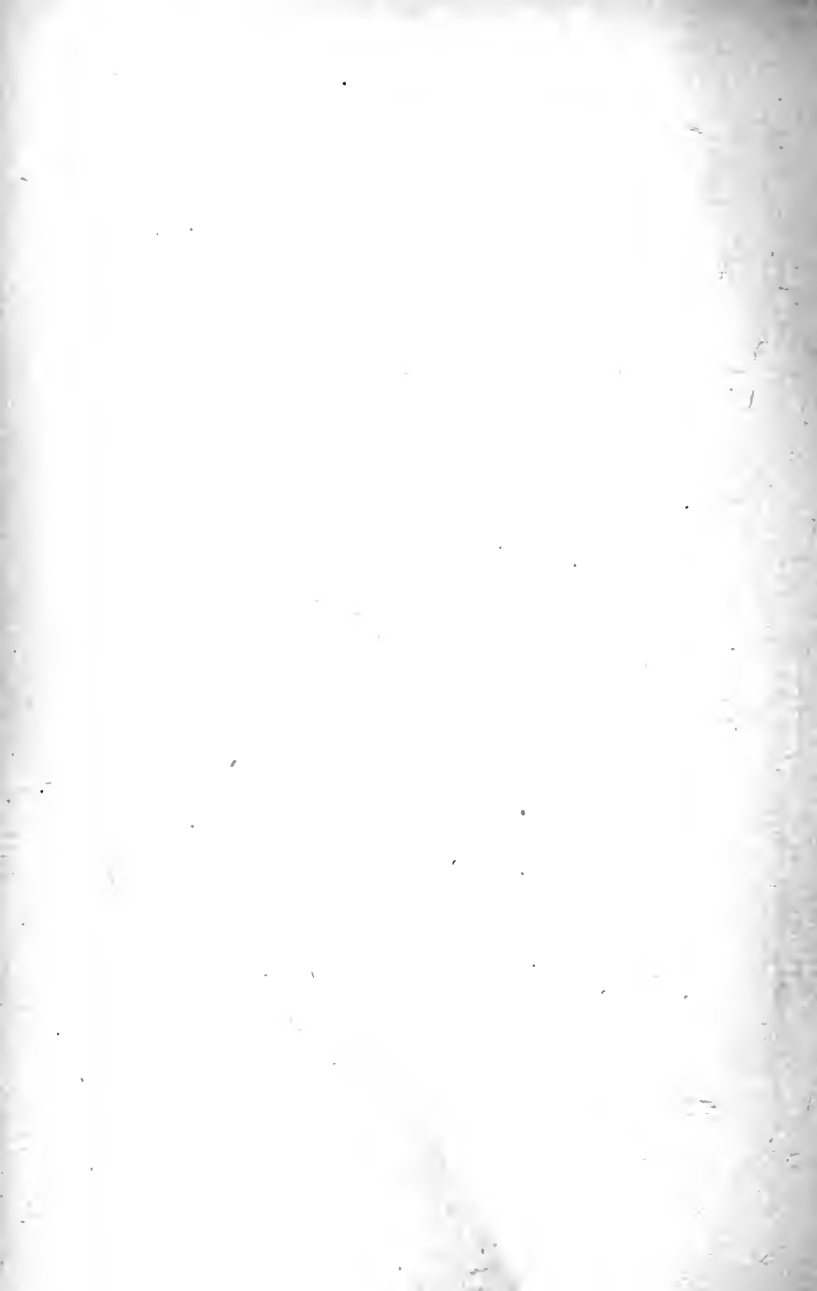
	Miles open.		Increase, miles.	Cost of new lines, millions £.	Total cost, millions £.	Passengers millions.	
	1870.	1880.				1870.	1879.
Great Britain . . .	15,537	17,696	2,159	187	717	348	629
France	10,851	15,375	4,524	126	421	110	160
Germany	11,457	21,275	9,818	244	442	136	196
Russia	7,098	14,698	7,600	145	272	14	38
Austria	5,906	12,160	6,254	132	255	21	42
Italy	3,825	5,096	1,271	22	99	24	29
Spain and Portugal	3,820	5,260	1,440	24	86	10	28
Scandinavia . . .	1,783	5,167	3,384	24	35	8	17
Belgium & Holland	2,684	3,910	1,226	28	84	47	67
Switzerland . . .	885	1,650	765	15	33	15	24
Turkey, etc. . . .	454	1,870	1,416	23	30	1	2
Europe	64,300	104,157	39,857	970	2,474	734	1,232
United States . .	44,614	86,497	41,883	578	991	110	198
Canada	4,010	6,145	2,135	25	73	4	6
Australia	1,170	4,350	3,180	44	60	1	4
India	4,780	8,611	3,831	59	123	22	43
South America . .	2,160	6,830	4,670	71	95	7	12
Africa, etc. . . .	966	5,897	4,931	12	71	1	2
THE WORLD . . .	122,000	222,487	100,487	1,759	3,887	879	1,497

CARRYING TRADE OF THE WORLD BY RAILWAY.

G. Passengers and Tons of merchandise are added together. The figures stand for millions carried.



See Tables 9 and 14.



14.

TOTAL COST AND TRAFFIC.

Goods million tons.		Cost of con- struction, per mile.	Railway capital com- pared with population, in shillings.		Actual receipts per mile.	Working expenses.	Net earn- ings per mile.	Profit on capital.
1870.	1879.		1870.	1880.				
170	215	£40,510	336	416	£3356	£1676	£1680	4·15 p. c.
52	70	27,350	155	228	2701	1377	1324	4·85 „
98	130	20,690	104	197	2477	1513	964	4·65 „
8	35	18,450	34	68	2284	1380	904	4·82 „
25	45	20,970	68	130	1760	959	801	3·86 „
6	8	19,380	57	70	1290	860	430	2·22 „
4	7	16,390	60	82	1225	515	710	4·40 „
5	7	6,865	31	83	620	401	219	3·38 „
29	32	20,480	128	176	1890	1215	675	3·21 „
4	6	20,010	140	236	1460	840	620	3·10 „
—	—	16,050	7	24	—	—	—	—
401	555	23,750	98	150	2255	1254	1001	4·21 „
150	210	11,456	214	396	1276	747	529	4·62 „
4	6	11,870	253	340	760	610	150	1·26 „
1	4	13,790	177	428	880	460	420	3·04 „
5	8	14,305	6	13	1306	681	625	4·37 „
4	8	13,910	21	78	950	540	410	3·00 „
1	2	12,000	7	19	—	—	—	—
566	793	17,440	66	120	£1690	963	727	4·18 „

TABLE 15.
INCREASE OF TELEGRAPHS SINCE 1870.

	Miles of Line.		Millions of Messages.		Messages per 100 Inhabitants.	
	1870.	1880.	1870.	1879.	1870.	1879.
Great Britain . . .	15,500	25,860	10	27	32	77
France	25,550	37,450	5½	15	15	40
Germany	15,600	41,500	9	16	22	33
Russia	29,200	59,600	3	6	4	7
Austria	17,400	34,200	5	9	14	23
Italy	11,100	15,900	2	6	8	22
Spain and Portugal .	6,200	12,500	2	3	10	15
Holland and Belgium	4,500	5,600	4	6	47	65
Scandinavia	8,500	12,900	1½	3	19	35
Switzerland	2,100	4,300	2	3	65	98
Turkey, Greece, etc.	16,500	24,300	3	4	12	16
Europe	152,150	274,110	47	98	16	30
United States . . .	70,000	119,000	11	30	29	62
British Colonies*	38,600	59,700	4	8	3	5
South America . . .	13,800	20,100	0	1	0	3
Egypt, etc.	3,100	33,600	2	4	5	10
Land Wires	277,650	506,510	64	141	14	31
Ocean Cables . . .	46,000	97,500				
Total length . . .	323,650	604,010				

* At present Australia has 26,850, India 18,200, Canada 11,000, and the other British Colonies 3650 miles of telegraph lines in working order.

TABLE 16.

MONEY OF ALL NATIONS COMPARED WITH POPULATION AND TRADE.

	Paper money, millions £.		Increase millions £.	Actual gold currency millions £.	Silver currency millions £.	Total of specie and paper.	Specie per inhabitant shillings.	Paper per inhabitant shillings.	Total shillings per inhabitant.	Specie ratio to commerce.	Paper ratio to commerce.	Total.	Money ratio to all industries.
	1870.	1880.											
G. Britain .	41	45	4	124	19	188	83	26	109	21 to 100	7 to 100	28 to 100	9 to 100
France .	71	90	19	147	85	322	125	49	174	71 "	28 "	99 "	24 "
Germany .	45	42	—	66	43	151	48	19	67	28 "	11 "	39 "	12 "
Russia .	117	178	61	22	12	212	9	45	54	18 "	93 "	111 "	24 "
Austria .	40	64	24	9	6	79	8	32	40	11 "	45 "	56 "	12 "
Italy .	52	65	13	8	10	83	14	45	59	21 "	70 "	91 "	22 "
Spain and Portugal .	8	15	7	40	17	72	57	15	72	124 "	33 "	157 "	30 "
Holland .	11	15	4	4	12	31	80	75	155	15 "	14 "	29 "	15 "
Belgium .	9	13	4	22	13	48	127	47	174	34 "	13 "	47 "	21 "
Scandinavia .	8	9	1	9	2	20	26	21	47	18 "	15 "	33 "	9 "
Switzerland .	1	4	3	12	7	23	136	28	164	—	—	—	—
Greece, Turkey, etc. .	5	22	17	1	1	24	2	20	22	4 "	40 "	44 "	14 "
EUROPE .	408	562	154	464	227	1253	41	32	73	31 "	25 "	56 "	16 "
U. States .	141	132	—	77	31	240	43	53	96	36 "	44 "	80 "	12 "
S. America .	36	67	31	3	9	79	9	51	60	13 "	74 "	87 "	32 "
Australia .	3	4	1	9	1	14	71	30	101	10 "	4 "	14 "	7 "
Canada .	4	8	4	1	1	10	9	38	47	6 "	24 "	30 "	6 "
Japan .	—	26	26	—	—	28	—	19	—	—	—	—	—
WORLD .	592	799	207	554	269	1622	36	35	71	30 "	29 "	59 "	16 "

NOTE.—The estimates of gold and silver coin are mainly from the Washington Mint Report. India is not included; say about 120 millions sterling of silver, 10 of gold, and 12 of paper.

TABLE 17.

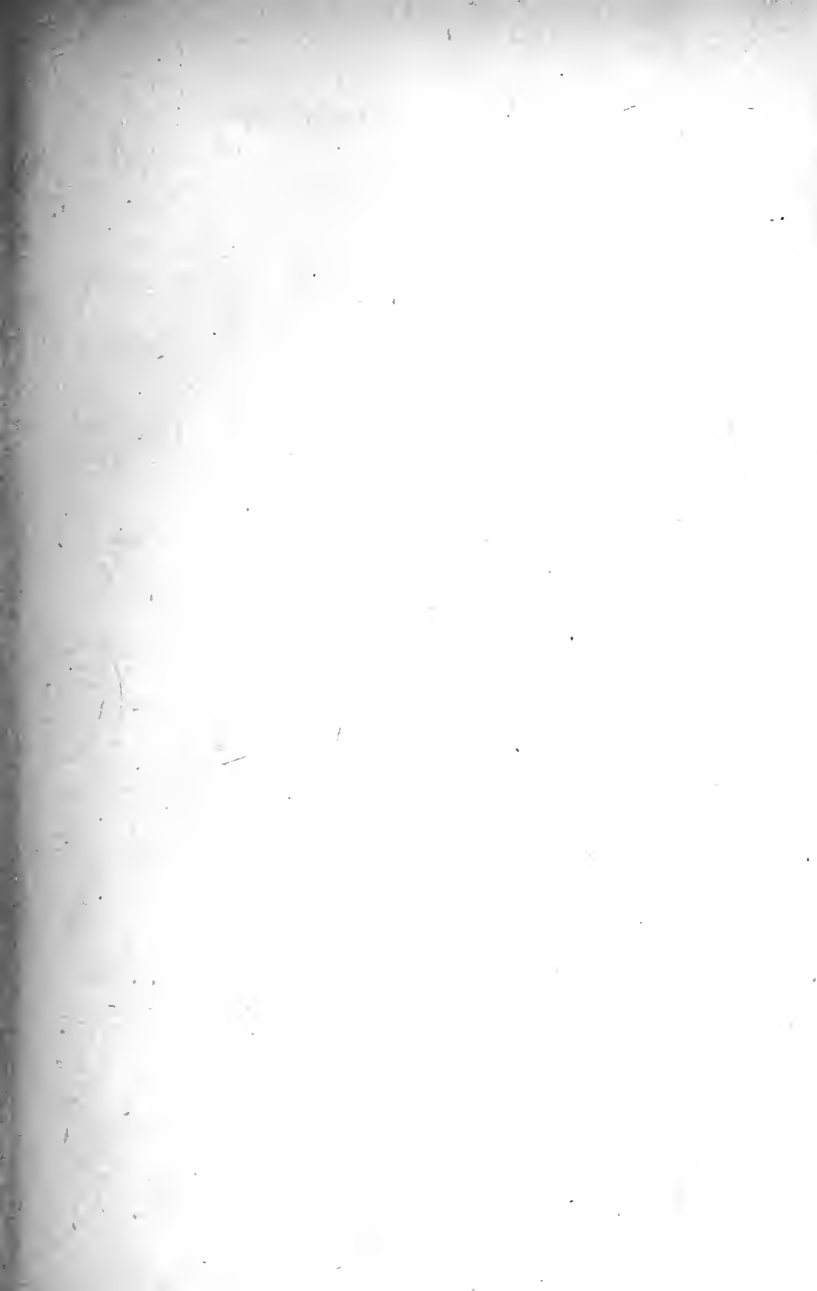
PRECIOUS METALS—PRODUCTION SINCE 1870.

	Gold.	Silver.	Total.
United States . .	£78,800,000	£67,600,000	£146,400,000
Australia . . .	69,400,000	—	69,400,000
Spanish America .	5,000,000	77,000,000	82,000,000
Russia, etc. . .	48,000,000	15,000,000	63,000,000
Total	£201,200,000	£159,600,000	£360,800,000

COIN MINTED SINCE 1870.

	Gold.	Silver.	Total.
Great Britain . .	£40,600,000	£6,500,000	£47,100,000
Australia . . .	27,400,000	—	27,400,000
Germany* . . .	87,200,000	21,100,000	108,300,000
Austria	5,000,000	15,000,000	20,000,000
France	32,150,000	19,300,000	51,450,000
Russia	25,000,000	10,000,000	35,000,000
Belgium	16,500,000	9,500,000	26,000,000
Holland	12,000,000	200,000	12,200,000
Italy	1,560,000	12,250,000	13,810,000
Scandinavia . .	2,200,000	2,100,000	4,300,000
United States . .	80,400,000	31,420,000	111,820,000
Mexico, Peru, etc.	2,100,000	23,500,000	25,600,000
Japan	1,100,000	4,600,000	5,700,000
India	100,000	38,000,000	38,100,000
Total	£333,310,000	£193,470,000	£526,780,000
Production of Mines	£201,200,000	£159,600,000	£360,800,000

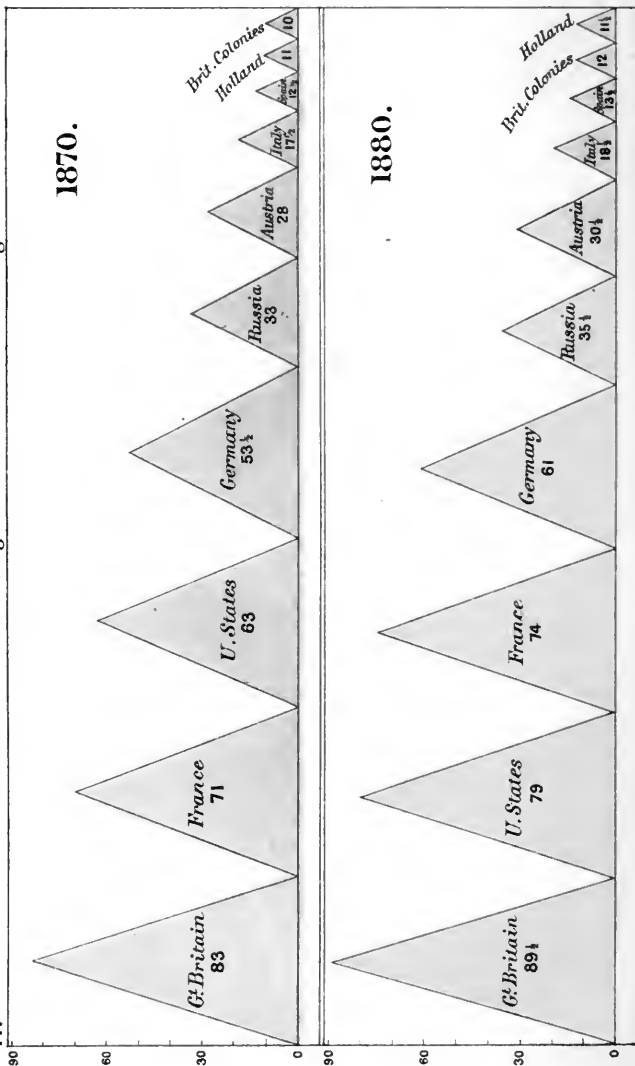
* Germany has re-minted £40,000,000 sterling of French gold.



ACCUMULATED WEALTH OF NATIONS.

Each foot of elevation signifies 100 millions sterling.

H.



See Table 18.

TABLE 18.
CAPITAL OR WEALTH OF NATIONS.

	Millions sterling.		Increase.	Ratio per Inhabitant.		Do. free of National Debt.	
	1870.	1880.	Millions £.	1870.	1880.	1870.	1880.
Great Britain	8,310	8,960	650	£264	£260	£238	£237
France . . .	7,122	7,417	295	187	201	174	180
Germany . . .	5,350	6,075	725*	141	135	137	130
Russia . . .	3,290	3,540	250	44	44	41	36
Austria . . .	2,830	3,050	220†	79	78	69	67
Italy . . .	1,750	1,860	110	66	65	52	47
Holland . . .	1,080	1,130	50	303	283	280	262
Belgium . . .	900	940	40	178	168	172	156
Spain . . .	1,240	1,373	133	76	82	59	51
Portugal . . .	255	272	17	64	65	49	45
Swed. and Nor.	693	738	45	115	113	114	110
Denmark . . .	340	350	10	190	178	183	173
Turkey, etc. . .	750	760	10	31	31	26	19
Europe . . .	33,910	36,465	2555	£111	£111	£101	£98
United States	6,320	7,880	1560	164	158	151	150
Australia . . .	346	490	144	190	172	170	140
Canada . . .	524	636	112	138	148	134	140
South Africa . .	71	98	27	80	72	78	65
South America	900	950	50	36	37	30	29
THE WORLD . . .	42,071	46,519	4448	£112	£113	£102	£101

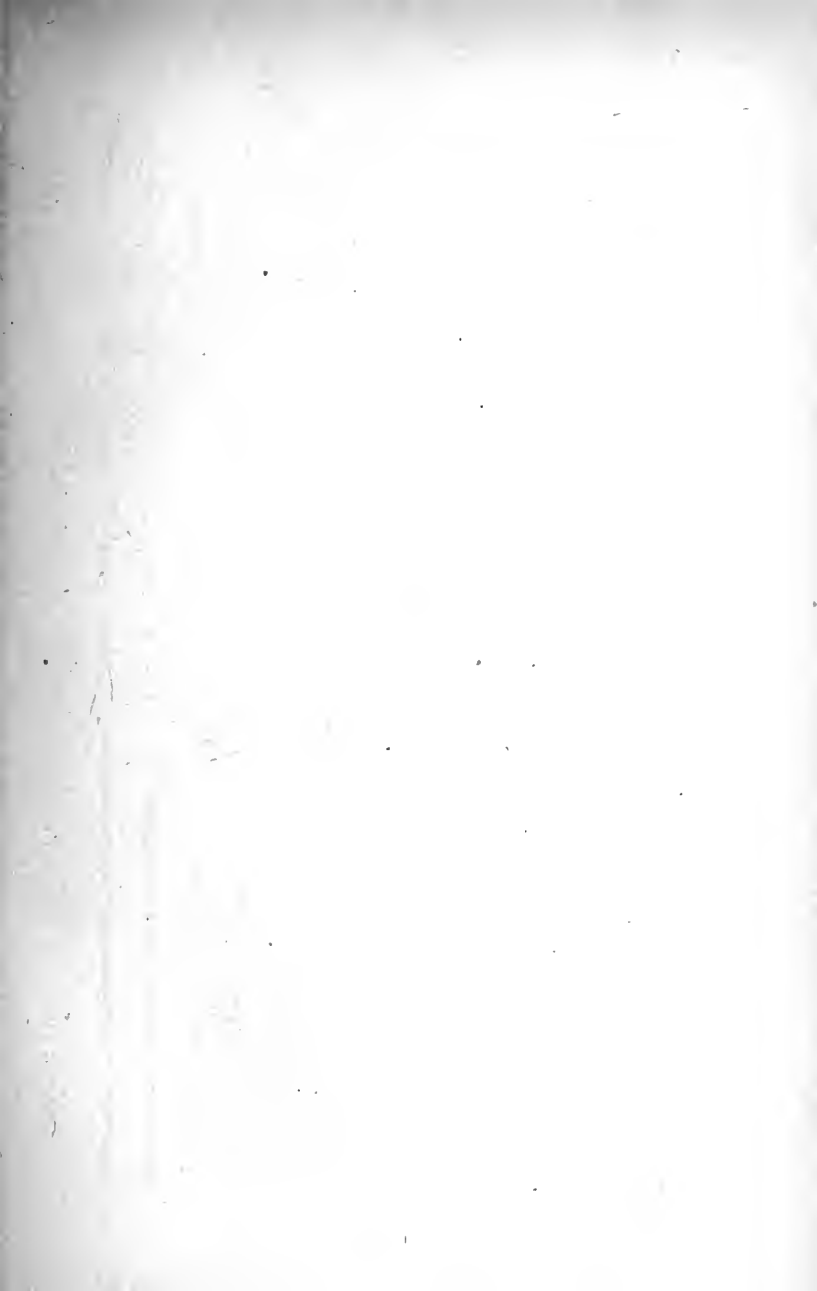
* Including £280,000,000 for Alsace-Lorraine.

† Including £55,000,000 for Bosnia.

TABLE 19.
PUBLIC DEBT OF NATIONS.
Compared with Population and Capital.

	Mill. sterling.		Increase millions £.	Ratio of Increase.	Ratio of decrease.	Ratio per inhab.		Ratio to capital.		Increase.	Decline.
	1870.	1880.				1870.	1880.	1870.	1880.		
G. Britain	798	774	—	—	3·01	£26	£23	9·61	8·64	—	0·97
France .	468	750	282	60·25	—	12	20	6·69	10·13	3·44	—
Germany .	148	229	81	5·47	—	4	5	2·77	3·76	0·99	—
Russia .	220	682	462	210·00	—	3	8	6·61	19·27	12·66	—
Austria .	340	419	79	23·24	—	9	11	12·01	13·74	1·73	—
Italy .	374	522	148	39·57	—	14	18	21·38	28·07	6·69	—
Spain .	285	530	245	86·00	—	18	31	22·98	38·69	15·71	—
Holland .	76	80	4	5·26	—	21	20	7·04	7·08	0·04	—
Belgium .	28	62	34	121·00	—	6	12	3·11	6·35	3·24	—
Sweden and Norway	6	20	14	233·30	—	1	3	0·86	2·71	1·85	—
Denmark .	13	10	—	—	23·08	7	5	3·82	2·86	—	0·96
Portugal .	60	94	34	56·66	—	15	21	23·53	33·25	10·72	—
Turkey, etc.	124	281	157	125·90	—	5	12	16·52	38·16	21·64	—
EUROPE	2940	4453	1513	51·40	—	£10	£14	8·70	12·26	3·56	—
U. States	496	390	—	—	23·39	13	8	7·87	4·95	—	2·92
Australia	37	91	54	146·00	—	20	32	10·70	18·50	7·80	—
Canada .	17	36	19	111·80	—	5	8	3·24	5·71	2·47	—
S. Africa	2	12	10	500·00	—	2	8	3·00	11·43	8·43	—
S. America	140	225	85	52·03	—	6	9	16·44	23·65	7·21	—
THE WORLD*	3632	5207	1575	43·39	—	£10	£13	8·67	11·18	2·51	—

* Not including the Debt of India, which was £108 000 000 in 1870, and £159 000 000 in 1880.



INCOME OR EARNINGS OF NATIONS.

I. Illustrated by rivers, each mile standing for one million sterling.

1870.	1880.
<i>Australia</i> , 63	<i>Australia</i> , 89
<i>Holland</i> , 89	<i>Holland</i> , 104
<i>Canada</i> , 94	<i>Canada</i> , 118
<i>Belgium</i> , 101	<i>Belgium</i> , 118
<i>Scandinavia</i> , 127	<i>Scandinavia</i> , 149
<i>Spain</i> , 159	<i>Spain</i> , 186
<i>Italy</i> , 233	<i>Italy</i> , 252
<i>Austria</i> , 403	<i>Austria</i> , 450
<i>Russia</i> , 566	<i>Russia</i> , 632
<i>Germany</i> , 702	<i>Germany</i> , 851
<i>France</i> , 788	<i>France</i> , 927
<i>Great Britain</i> , 961	<i>Great Britain</i> , 1156
<i>United States</i> , 1062	<i>United States</i> , 1,406

See Table 20.

TABLE 20.
EARNINGS OR INCOME OF NATIONS.*

	Millions sterling.		Increase. Millions £.	Ratio per inhabitant.		Do. free of taxes.	
	1870.	1880.		1870.	1880.	1870.	1880.
Great Britain.	961	1156	195	£30 10 6	£33 10 4	£26 17 1	£29 10 7
France.	788	927	139	20 14 8	23 1 0	17 12 2	18 12 5
Germany.	702	851	149	18 10 2	18 14 6	16 16 6	16 9 8
Russia.	566	632	66	7 13 6	7 18 0	6 13 8	6 12 6
Austria.	403	460	57	11 3 10	11 15 8	9 7 0	9 15 1
Italy.	233	252	19	8 16 2	8 17 8	6 6 1	6 1 4
Spain.	159	186	27	9 12 9	11 5 6	7 11 6	8 19 2
Belgium.	101	118	17	20 2 0	21 3 4	17 16 6	18 8 10
Holland.	89	104	15	25 8 5	26 1 2	21 18 10	22 10 7
Sweden and Norway.	89	105	16	14 16 8	16 3 1	13 15 3	14 13 2
Denmark.	38	44	6	21 2 3	22 1 6	19 2 2	20 8 2
Portugal.	32	35	3	8 0 4	8 0 8	6 11 4	6 4 10
Turkey, etc.	94	83	—	4 5 0	4 0 0	3 12 6	3 9 4
Europe.	4255	4953	698	£13 14 2	£14 13 6	£11 15 7	£12 6 6
United States.	1062	1406	344	27 11 8	27 18 4	23 17 10	25 5 9
Australia.	63	89	26	34 12 0	31 2 0	29 3 0	25 8 6
Canada.	94	118	24	25 1 4	27 13 10	23 8 1	25 11 8
South Africa.	13	18	5	14 10 0	13 8 0	13 8 4	10 14 0
South America.	165	189	24	6 14 1	7 13 6	5 4 4	6 3 1
THE WORLD.	5652	6773	1121	£14 17 10	£16 2 1	£12 15 6	£13 15 2

* Computed on a uniform basis in relation with the six great industries of Table 1.

TABLE 21.
TAXATION (NATIONAL AND LOCAL) COMPARED WITH POPULATION,
INDUSTRY, AND EARNINGS.

	Millions sterling.		Ratio of Increase.	Ratio per inhab. shillings.		Ratio to industry.		Ratio to income.		Increase.	Decline.
	1870.	1880.		1870.	1880.	1870.	1880.	1870.	1880.		
Great Britain	114	137	20·17	73	79	6·73	6·78	11·92	11·88	—	0·04
France . .	119	162	36·13	63	88	10·17	12·27	15·10	17·47	2·37	—
Germany . .	64	101	57·81	34	45	6·43	8·01	9·12	11·88	2·76	—
Russia . .	74	102	37·83	20	25	10·38	11·86	13·07	16·19	3·12	—
Austria . .	66	80	21·21	37	41	12·22	12·12	16·38	17·39	1·01	—
Italy . .	66	79	19·70	50	55	20·30	20·70	28·32	31·35	3·03	—
Spain . .	34	38	11·77	42	45	15·70	15·70	21·38	20·43	—	0·95
Belgium . .	11	15	36·35	44	53	6·01	6·30	10·89	12·71	1·82	—
Holland . .	12	14	16·66	66	70	7·23	6·57	13·48	13·46	—	0·02
Swed. and Nor.	6	9	50·10	20	27	4·84	5·70	6·74	8·57	1·83	—
Denmark . .	4	4	8·45	44	43	7·05	6·07	10·31	9·78	—	0·53
Portugal . .	6	8	31·20	30	38	13·63	15·70	19·05	22·56	3·51	—
Turkey, etc..	31	28	—	12	11	14·22	14·85	32·70	29·80	—	2·90
Europe . .	607	777	28·01	39	47	9·14	9·97	13·87	15·38	1·51	—
United States	142	129	—	74	52	9·82	6·45	13·39	9·21	—	4·18
Australia . .	10	17	70·00	113	127	8·57	9·90	16·20	18·90	2·70	—
Canada . .	6	8	34·10	31	37	4·85	5·20	6·38	6·78	0·40	—
South Africa	1	4	298·00	22	61	6·30	12·40	7·30	19·60	12·30	—
South America	28	36	28·60	23	30	14·76	16·80	16·47	19·25	2·78	—
THE WORLD *	794	971	22·34	43	47	9·45	9·42	14·05	14·34	0·29	—

* India is not included: the revenue of that country was £51,000,000 in 1870, and £68,000,000 in 1880.

TABLE 22.
ALIQUOT PARTS OF CAPITAL, DEBT, INCOME, AND TAXATION.

	Capital.		Public Debt.*		Earnings.		Taxation.	
	1870.	1880.	1870.	1880.	1870.	1880.	1870.	1880.
G. Britain	19.73	19.18	21.98	14.86	17.01	17.07	14.36	14.12
France	16.90	15.90	12.89	14.40	13.94	13.69	15.01	16.70
Germany	12.71	13.00	4.07	4.40	12.42	12.57	8.08	10.40
Russia	7.83	7.61	6.04	13.10	10.02	9.33	9.34	10.51
Austria	6.74	6.57	9.37	8.05	7.13	6.79	8.33	8.25
Italy	4.17	4.01	10.31	10.03	4.12	3.72	8.32	8.15
Spain	2.95	2.96	7.86	10.18	2.81	2.75	4.29	3.92
Belgium	2.14	2.03	0.77	1.19	1.79	1.74	1.38	1.55
Holland.	2.57	2.43	2.09	1.54	1.57	1.53	1.51	1.44
Sweden and Norway	1.65	1.59	0.16	0.38	1.56	1.54	0.75	0.93
Denmark	0.81	0.76	0.35	0.20	0.67	0.66	0.52	0.42
Portugal	0.61	0.58	1.66	1.80	0.57	0.52	0.74	0.82
Turkey, etc.	1.79	1.48	3.44	5.39	1.70	1.24	3.82	2.89
EUROPE	80.60	78.10	80.99	85.52	75.31	73.15	76.45	80.10
U. States	15.02	16.90	13.66	7.49	18.79	20.77	17.93	13.30
Australia	0.80	1.05	1.02	1.75	1.11	1.31	1.25	1.70
Canada	1.24	1.36	0.47	0.69	1.66	1.74	0.74	0.82
S. Africa	0.16	0.23	0.06	0.23	0.20	0.26	0.13	0.41
S. America	2.18	2.36	3.80	4.32	2.93	2.77	3.50	3.67
THE WORLD	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

* Not including provincial or municipal debts. In Germany, of course, the debts of the kingdoms are included.

TABLE 23.

THE ART OF WAR.

Increase or Decrease of Armaments since 1869.

	Cost of Army. 000's are suppressed.		Cost of Navy. 000's suppressed.		Total Expenditure. 000's suppressed.		Force in 1869.	Force in 1880.	Ratio to Population.	
	1869.	1880.	1869.	1880.	1869.	1880.			1869.	1880.
Great Britain	£15,000	£15,600	£11,400	£10,400	£26,400	£26,000	268,700	258,200	0·87	0·74
France . . .	17,000	22,500	8,000	6,300	25,000	28,800	493,000	523,000	1·30	1·41
Germany . . .	12,000	17,500	900	2,900	12,900	20,400	380,000	448,000	1·00	1·01
Russia . . .	18,000	29,000	3,500	4,100	21,500	33,100	876,000	835,000	1·19	1·04
Austria . . .	9,500	12,400	900	800	10,400	18,200	283,000	298,000	0·81	0·78
Italy . . .	6,200	8,800	1,300	2,200	7,500	11,000	199,000	216,000	0·76	0·77
Spain . . .	4,200	4,900	1,200	1,100	5,400	6,000	174,000	120,000	1·08	0·80
Holland . . .	1,200	2,000	1,300	1,200	2,500	3,200	82,000	86,000	2·34	2·15
Belgium . . .	1,400	1,900	—	—	1,400	1,900	73,000	46,000	1·46	0·81
Denmark . . .	400	500	200	300	600	800	44,000	40,000	2·50	2·02
Swed. and Nor.	700	1,400	300	400	1,000	1,800	60,000	62,000	1·00	0·95
Portugal . . .	700	800	300	300	1,000	1,100	26,000	34,000	0·65	0·80
Turkey . . .	3,700	2,000	1,000	500	4,700	2,500	188,000	103,000	1·70	2·10
Greece . . .	200	300	100	100	300	400	9,000	24,000	0·60	1·50
Europe . . .	£90,200	£119,600	£30,400	£30,600	£120,600	£150,200	3,155,700	3,093,200	1·03	0·93
United States	16,000	8,000	4,000	2,800	20,000	10,800	64,000	33,000	0·17	0·07
Brazil . . .	1,500	1,500	800	1,000	2,300	2,500	72,000	21,000	0·80	0·21
Total . . .	£107,700	£129,100	£35,200	£34,400	£142,900	£163,500	3,291,700	3,147,200	0·93	0·76

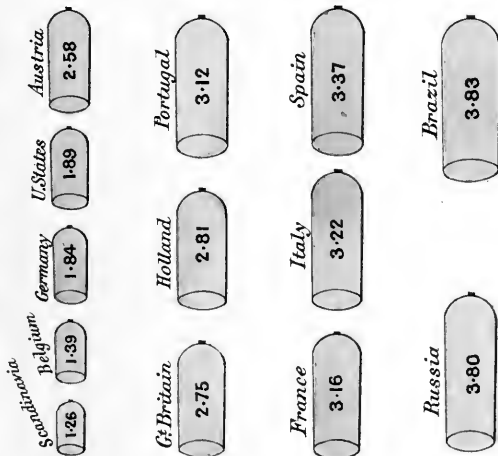
THE ART OF WAR.

Military expenditure compared with earnings of each nation.

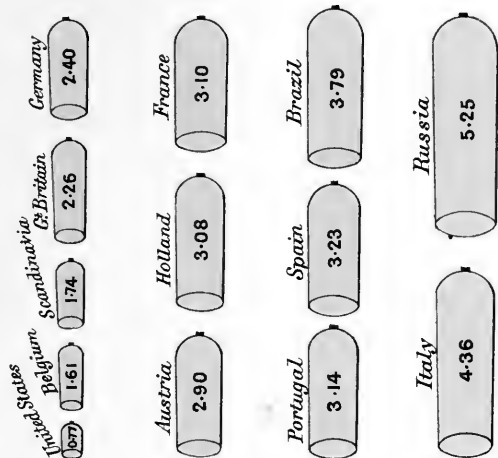
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1869.

Note.—The ratio for Europe has risen from 2.83 to 2.98; that of the world declined from 2.53 to 2.38.



1880.



See Tables 23 and 24.

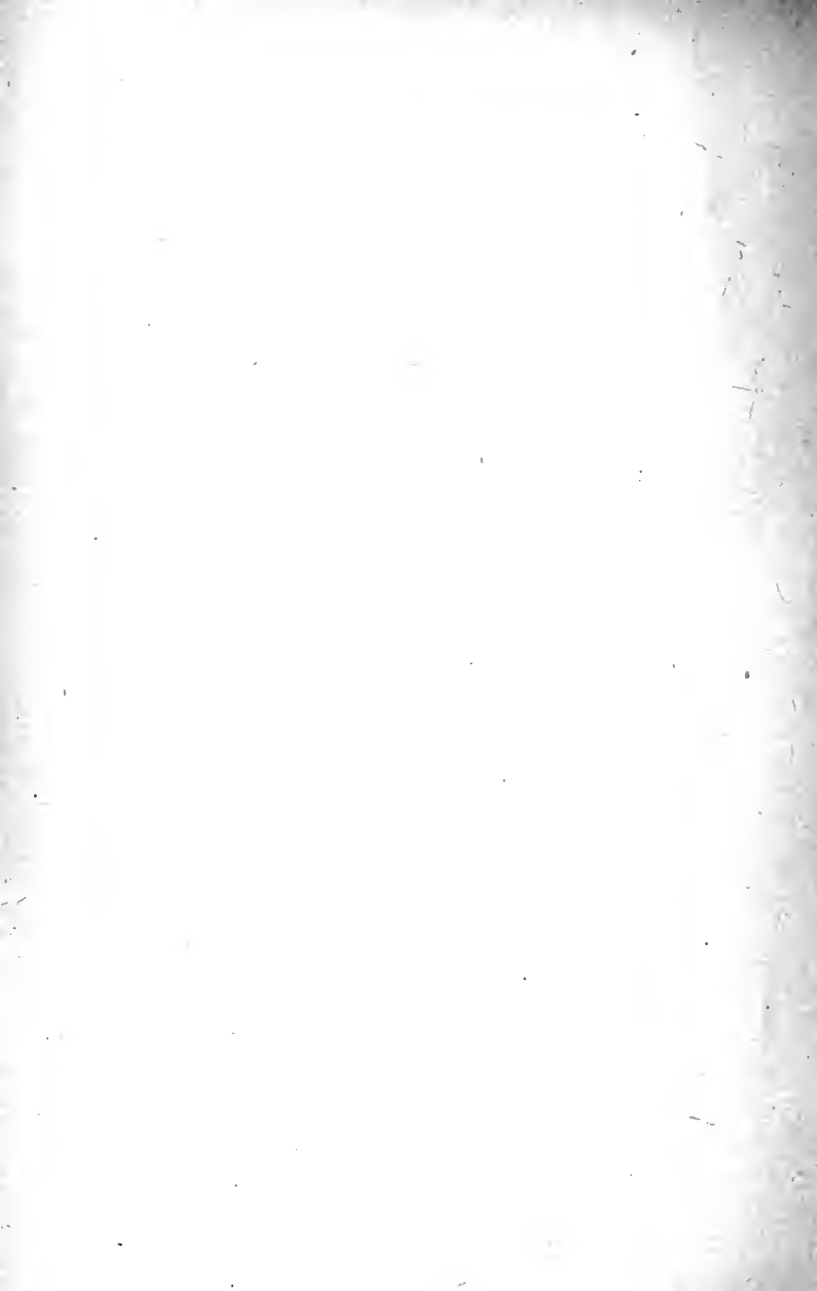


TABLE 24.
COMPARATIVE TABLE OF MILITARY EXPENDITURE.

	Ratio of Budget.		Military expenditure compared with earnings.		Increase.	Decrease.	Cost per inhabitant.		Cost of each soldier or sailor.	
	1869.	1880.	1869.	1880.			1869.	1880.	1869.	1880.
G. Britain	35.10	30.95	2.75	2.26	—	0.49	16/8	15/6	£98	£101
France	32.02	23.76	3.16	3.10	—	0.06	13/	15/6	42	55
Germany	25.80	23.72	1.84	2.40	0.56	—	6/8	9/2	31	45
Russia	33.08	34.80	3.80	5.25	1.45	—	5/6	8/2	24	40
Austria	22.90	20.68	2.58	2.90	0.32	—	5/9	6/9	58	51
Italy	16.30	20.02	3.22	4.36	1.14	—	5/8	7/9	38	51
Spain	19.28	20.03	3.37	3.23	—	0.14	6/8	7/6	31	46
Belgium	20.02	19.10	1.39	1.61	0.22	—	5/10	7/2	19	41
Holland	27.80	32.20	2.81	3.08	0.27	—	13/4	16/	30	37
Scandinavia	26.10	28.80	1.26	1.74	0.48	—	4/3	6/6	16	26
Portugal	24.30	18.40	3.12	3.14	0.02	—	5/	5/	38	44
Europe	28.24	25.80	2.83	2.98	0.15	—	7/10	9/2	£38	£49
U. States.	30.18	19.28	1.89	0.77	—	1.12	11/	4/6	312	327
Brazil	23.40	25.60	3.83	3.79	—	0.04	5/	5/6	32	119
THE WORLD	28.20	25.40	2.53	2.38	—	0.15	8/1	8/5	£43	£52

TABLE 25.
FOOD SUPPLY OF ALL NATIONS.

	Grain—Million Bushels.				Meat—Thousand Tons.			Production of			
	Produce- tion.	Con- sump- tion.	Sur- plus.	Deficit.	Produce- tion.	Consump- tion.	Sur- plus.	Deficit.	Wine. Million Gals.	Beer. Million Gals.	Spirits. Million Gals.
Great Britain	410	690	—	280	1,205	1,808	—	603	0	1110	31
France	740	910	—	170	1,002	1,228	—	226	660	192	33
Germany	950	1065	—	115	1,340	1,700	—	360	90	880	61
Russia	1620	1440	180	—	2,116	1,925	191	—	20	50	105
Austria	560	530	30	—	960	975	—	15	290	245	24
Italy	270	275	—	5	224	215	9	—	660	20	8
Spain	305	300	5	—	196	188	8	—	260	0	4
Belgium	95	120	—	25	92	140	—	48	0	170	15
Holland	50	65	—	15	144	87	57	—	0	35	16
Denmark	74	62	12	—	112	52	60	—	0	25	8
Sweden and Norway	78	80	—	2	213	146	67	—	0	35	27
Portugal	30	35	—	5	54	47	7	—	88	0	1
Turkey, Greece, etc.	90	80	10	—	250	250	—	—	24	0	1
Europe	5272	5652	—	380	7,908	8,761	—	853	2092	2762	334
United States	2390	2020	370	—	3,816	2,740	1076	—	20	360	76
Australia	58	41	17	—	990	152	838	—	2	0	4
Canada	170	160	10	—	287	270	17	—	0	0	1
River Plate	6	6	—	—	1,310	272	1038	—	1	1	1
Algeria	20	15	5	—	110	82	28	—	9	0	0
* Total	7916	7894	22	—	14,421	12,277	2144	—	2124	3123	416

* There are, moreover, 200 million bushels of wheat grown in India, of which one-tenth is exported; and besides the wine crop here given, the Cape produces 4½ million gallons, and Madeira, Canaries, etc., 5 millions.

FOOD SUPPLY OF ALL NATIONS.

Bushels of Grain to 100 inhabitants.

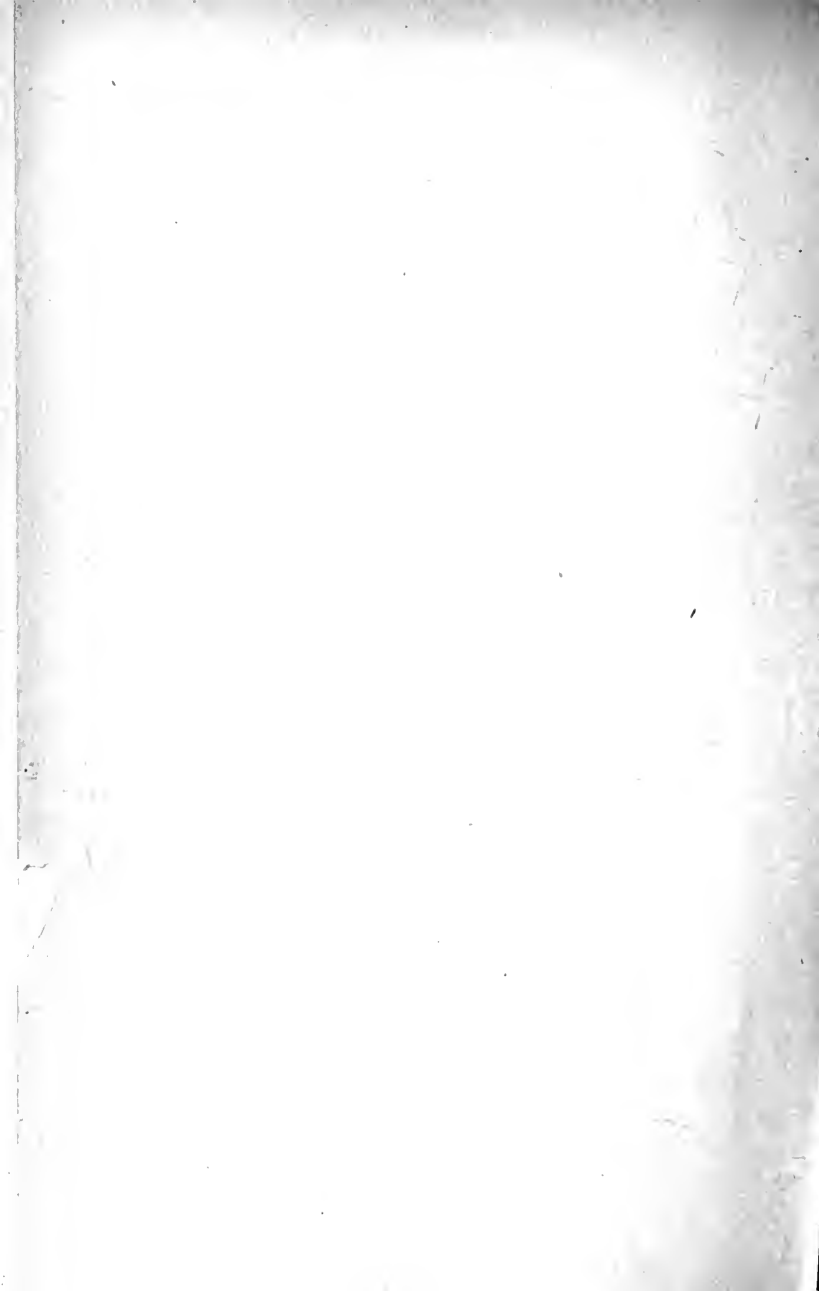
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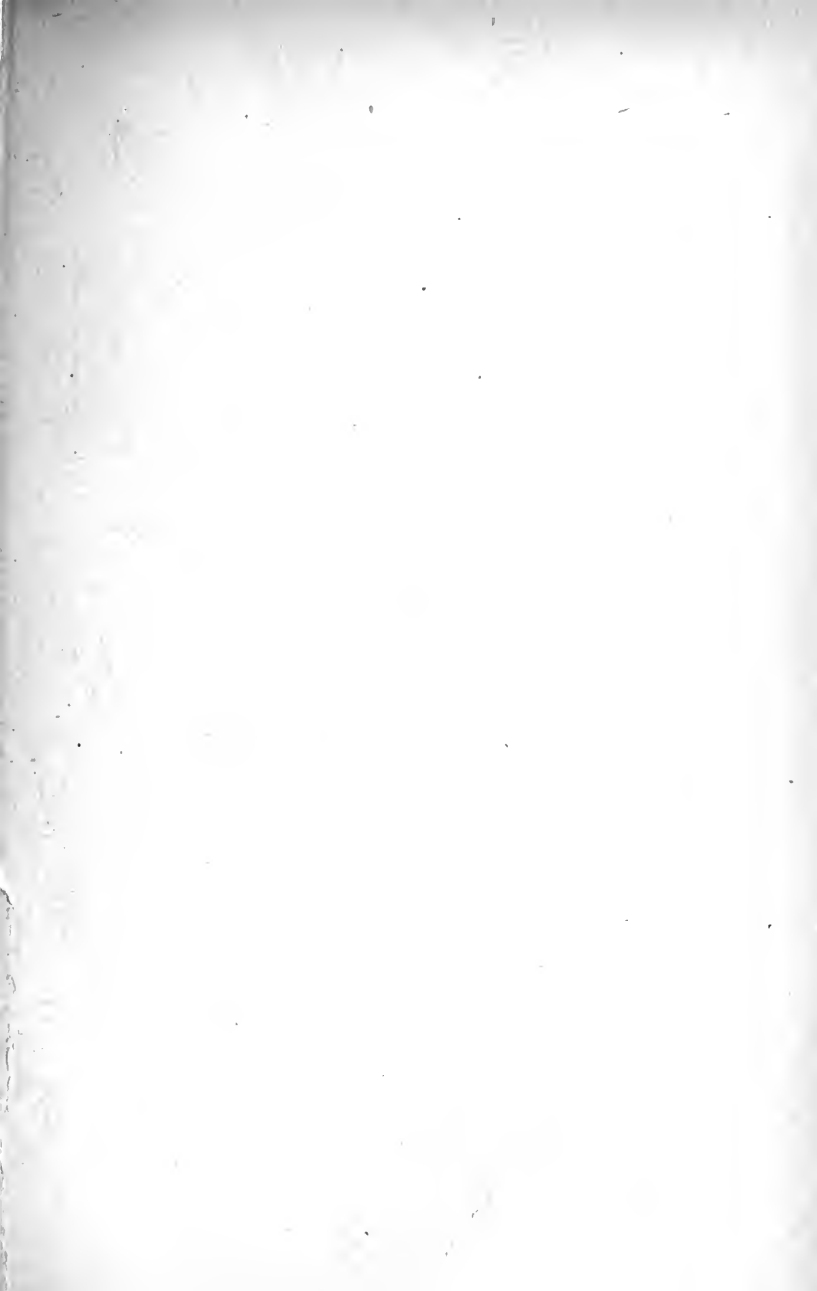
RED=CONSUMPTION.

GREEN=PRODUCTION.

<i>Austria</i> 1357	<i>Austria</i> 1435	<i>Sweden</i> 1205	<i>Sweden</i> 1175	<i>Italy</i> 962	<i>Italy</i> 945	<i>Portugal</i> 833	<i>Portugal</i> 714
<i>Russia</i> 1797	<i>Russia</i> 2022	<i>Spain</i> 1768	<i>Spain</i> 1798	<i>Holland</i> 1625	<i>Holland</i> 1250	<i>Australia</i> 1459	<i>Australia</i> 2100
<i>France</i> 2402	<i>France</i> 1994	<i>Germany</i> 2371	<i>Germany</i> 2115	<i>Belgium</i> 2284	<i>Belgium</i> 1725	<i>Great Britain</i> 2002	<i>Great Britain</i> 1190
<i>United States</i> 4066	<i>United States</i> 4810		<i>Canada</i> 3790	<i>Canada</i> 4030		<i>Denmark</i> 3083	<i>Denmark</i> 3680

See Tables 25, 26 & 27.





FOOD SUPPLY OF ALL NATIONS.

The numbers express lbs. of meat for every 100 inhabitants, per annum.

M.

RED=CONSUMPTION. GREEN=PRODUCTION.

<i>Italy</i> 2080	<i>Italy</i> 2,564	<i>Spain</i> 2504	<i>Spain</i> 2,600	<i>Holland</i> 8,075	<i>Holland</i> 4,840	<i>Sweden</i> 5,110	<i>Sweden</i> 7,280	<i>Russia</i> 5,405	<i>Russia</i> 5,934
<i>Austria</i> 5603	<i>Austria</i> 5,510	<i>Belgium</i> 5,710	<i>Belgium</i> 3,760	<i>Denmark</i> 5,815	<i>Denmark</i> 12,580	<i>France</i> 8,188	<i>France</i> 6,806		
<i>Germany</i> 8,451	<i>Germany</i> 6,663	<i>Gt Britain</i> 11,910	<i>Gt Britain</i> 7,826	<i>Canada</i> 12,000	<i>Canada</i> 15,300	<i>U. States</i> 12,000	<i>U. States</i> 17,000		
<i>Australia</i> 14,000	<i>Australia</i> 79,300	<i>River Plate</i> 15,000	<i>River Plate</i> 118,000						

See Tables 25, 26 & 27.

TABLE 26.

FOOD OF ALL NATIONS.

	Grain per inhabitant.				Meat per inhabitant.				Liquor per inhabitant.			
	Produc- tion. Bushls.	Con- sump- tion. Bushls.	Sur- plus. Bushls.	Deficit. Bushls.	Produc- tion lbs.	Consump- tion lbs.	Surplus lbs.	Deficit. lbs.	Wine.			
									Gallons produc- tion.	Gallons con- sump- tion.	Beer gallons.	Spirits gallons.
G. Britain . . .	11·90	20·02	—	8·12	78·26	119·10	—	40·84	0	0·51	32·18	0·90
France . . .	19·94	24·02	—	4·08	68·06	81·88	—	13·82	17·80	18·60	5·15	0·88
Germany . . .	21·15	23·71	—	2·56	66·63	84·51	—	17·88	2·10	3·20	19·44	1·35
Russia . . .	20·22	17·97	2·25	—	59·34	54·05	5·29	—	0·02	0·03	0·65	1·30
Austria . . .	14·35	13·57	0·78	—	55·10	56·03	—	0·93	7·55	7·50	6·25	0·60
Italy . . .	9·45	9·62	—	0·17	21·54	20·80	0·74	—	23·44	22·57	0·75	0·30
Spain . . .	17·98	17·68	0·30	—	26·00	25·04	0·96	—	15·40	12·50	0	0·25
Belgium . . .	17·25	22·84	—	5·59	37·60	57·10	—	19·50	0·00	0·72	30·70	2·80
Holland . . .	12·50	16·25	—	3·75	80·75	48·40	32·35	—	0·00	0·76	8·75	2·90
Denmark . . .	36·80	30·83	5·97	—	125·80	53·15	67·65	—	0·00	0·25	12·50	4·20
Swed. and Nor. . .	11·75	12·05	—	0·30	72·80	51·10	21·70	—	0·00	0·25	5·40	4·20
Portugal . . .	7·14	8·33	—	1·19	28·82	25·20	3·62	—	20·42	16·40	0	0·20
Greece, Turkey, etc.	7·50	6·66	0·84	—	45·00	45·00	—	—	2·00	1·80	0	0·10
Europe . . .	16·50	17·66	—	1·16	51·10	57·50	—	6·40	7·60	7·50	8·30	1·01
U. States . . .	48·10	40·66	7·44	—	171·00	120·00	51·00	—	0·40	0·60	7·20	1·52
Australia . . .	21·10	14·59	6·51	—	790·00	120·00	670·00	—	0·75	1·30	?	1·36
Canada . . .	40·30	38·11	2·19	—	153·00	120·00	33·00	—	0	0·11	?	0·30
River Plate . . .	2·02	2·02	—	—	1183·00	200·00	983·00	—	0·33	6·20	2·00	0·25
Algeria . . .	6·60	4·95	1·65	—	88·00	66·00	22·00	—	3·10	2·95	?	0·10
General average . . .	20·23	20·19	0·04	—	77·00	68·87	8·13	—	6·56	6·53	8·02	1·06

TABLE 27.
AGRICULTURAL AND PASTORAL INDUSTRIES.

	Grain Cultivation.			Pastoral Farming.			
	Acres under grain.	Do. per Adult male.*	Bushels per acre.	Cows.	Sheep.	Cows per 100 inhabitants.	Sheep per 100 inhabitants.
Great Britain	11,260,000	1·63	36·40	9,912,000	32,174,000	29	93
France	40,300,000	5·45	18·50	11,315,000	23,674,000	30	64
Germany	43,200,000	4·75	22·05	15,800,000	25,200,000	35	55
Russia	158,000,000	9·95	10·25	28,000,000	64,000,000	35	80
Austria	37,300,000	4·78	15·04	13,133,000	21,418,000	33	55
Italy	19,560,000	3·43	13·80	3,490,000	7,150,000	12	25
Spain	25,000,000	7·50	12·20	1,550,000	14,000,000	9	84
Belgium	2,910,000	2·65	32·72	1,242,000	586,000	22	10
Holland	1,730,000	2·16	28·80	1,466,000	941,000	37	24
Denmark	2,670,000	6·70	27·72	1,348,000	1,720,000	68	88
Sweden and Norway	4,380,000	3·37	17·80	3,205,000	3,276,000	49	50
Portugal	2,570,000	2·84	11·64	523,000	2,417,000	12	55
Greece	610,000	2·90	15·20	58,000	2,100,000	3	130
Europe	349,490,000	5·82	15·06	91,042,000	198,656,000	30	66
United States	102,500,000	10·25	23·30	33,500,000	38,000,000	67	76
Australia	3,400,000	6·10	17·10	7,879,000	65,914,000	287	2402
Canada	8,500,000	9·90	20·00	2,702,000	3,331,000	63	77
River Plate	330,000	0·60	19·00	18,850,000	76,000,000	630	2580
South Africa	600,000	2·40	9·90	1,730,000	11,700,000	130	890
WORLD	464,820,000	6·44	17·02	155,703,000	393,601,000	43	109

* Counting one-fifth of the population as adult males.

BALANCE-SHEET OF GREAT BRITAIN.

1870-1880.

IN 1880 the industries of Great Britain attained a point never before reached in this or any other country, but if we compare the progress made during the decade we shall find it was less than in the interval from 1860 to 1870, and much less than in the United States during the ten years now under consideration. But although this is probably the last time that Great Britain will occupy the highest rank in the industrial nations of mankind, there is no symptom of decline, no diminution of force or energy to cause us any anxiety. On the contrary, the productive labour of our people shows every year a higher ratio per inhabitant, and as compared with other European nations Great Britain is leaving them farther behind, as will appear from the aliquot parts of European industry as follows:—

	1870.	1880.
Great Britain . .	26·09	26·32
Continent . .	73·91	73·68
	<hr/> 100·00	<hr/> 100·00

There is but one industry, agriculture, in which we have lost ground, the advance in all the rest being so great that the aggregate for 1880 shows an increase of 337 millions sterling, equal to 20 per cent on that of 1870,

¹ See aliquot parts of industries of mankind, Table 3.

whereas population has risen only 10 per cent in the same period. The figures stand thus, in millions sterling—

	1870.	1880.	Increase.
Commerce . .	547	692	145
Manufactures . .	642	758	116
Mining . .	46	65	19
Agriculture . .	260	240	...
Carrying-trade . .	78	121	43
Sundries . .	34	40	6
Banking . .	80	108	28
Total .	<u>1687</u>	<u>2024</u>	<u>337</u>

Commerce has not risen so much as in the previous decade, when the increase was 169 millions, nor does mining show the same advance as between 1860 and 1870, the increase being only 24 million, against 26 million, tons. Manufactures have grown less than any other branch of national increase, namely, 18 per cent, which is nevertheless more than the rise in population, the average being now £22 per inhabitant, or 32s. more than in 1870. Banking and shipping exhibit an enormous development, as if the finances of mankind were concentrating themselves in London, and the carrying-trade of the seas passing into our hands. This is the more remarkable, as the balance of trade against Great Britain has increased in a degree that some economists consider alarming, viz.—

Millions sterling.			
	1870.	1880.	
Imports . . .	305	414	
Exports . . .	242	278	
Surplus imports .	<u>63</u>	<u>136</u>	

Thus the balance of trade against us was 25 per cent in 1870, and 49 per cent in 1880. This is, however, rather an indication of prosperity than the reverse, since

we see that until 1840 our exports were more than our imports, and that Russia and Spain have the balance in their favour, and are steeped in poverty. The only drawback in our table of industries is agriculture, which shows a decline of 8 per cent, the area under crops having fallen from 17,142,000 to 15,849,000 acres. The aggregate value of crops has declined much more heavily, but this is partly counterbalanced by an increase of 10 per cent in horned cattle. It is true that sheep have diminished two millions in number, but if we take 10 sheep for a cow, the total stock is now equal to 13,127,000 head of horned cattle, against 12,503,000 in 1870, a rise of 5 per cent.

Comparing the various industries with population, we see more clearly the degree of progress, viz.—

Shillings per inhabitant.				
	1870.	1880.	Increase.	
Commerce . . .	349	398	49	
Manufactures . . .	408	440	32	
Mining	29	38	9	
Agriculture . . .	165	139	—	
Carrying-trade . . .	49	68	19	
Insurance, etc. . .	22	25	3	
Banking	51	63	12	
	<hr/>	<hr/>	<hr/>	
	1073	1171	98	

The above is merely the money value, but the actual work done shows a greater increase. For example, while the value of goods manufactured has risen only 18 per cent, the consumption of raw material for textiles (Table 5) has risen 23 per cent, and that of iron 42 per cent, the production of steel having, moreover, quadrupled (Table 6) in the said ten years. Banking has risen 35 per cent, this item amounting at present to 108 millions, viz.—

Interest on 1400 millions, annual discounts at 3 per cent . £42,000,000
 Dividends on 1100 millions, in foreign loans, colonies, etc. 66,000,000

£108,000,000

As regards the carrying-trade (see diagrams F and G), the increase has been more than 50 per cent, as appears from the earnings (Table 9), viz.—

	1870.	1880.	Increase.
Railways . .	£43,417,000	£62,800,000	£19,383,000
Ocean shipping .	30,020,000	51,920,000	21,900,000
Coast „ .	4,850,000	6,470,000	1,620,000
	<u>£78,287,000</u>	<u>£121,190,000</u>	<u>£42,903,000</u>

The increased efficiency of our merchant shipping is shown by the fact that in 1870 we employed 196,000 seamen in carrying 59 million tons of merchandise, and in 1879 only 194,000 for 89 million tons; that is, the ratio has risen from 302 to 455 tons per seaman, or in other words two seamen now do as much work as three did in 1870. It has often been erroneously stated that our growing ascendancy on sea is because of our being able to build iron vessels and steamers cheaper than other nations, as if Germans or Italians cannot buy vessels in our dock-yards on the Clyde! The secret is that our men do more work, and consequently that we can carry cheaper than any other flag. The tonnage borne by our vessels has grown as follows:—

British flag.	1870.	1879.	Increase.
Entries in British ports .	10,309,000	15,040,000	47 per cent
„ in foreign ports .	19,711,000	36,880,000	86 „
British coast traffic .	28,850,000	37,200,000	28 „
	<u>58,870,000</u>	<u>89,120,000</u>	<u>51 „</u>

Steamers performed 55 per cent of our ocean carrying

trade in 1870, and at present the ratio is 76 per cent. The increase of our shipping, not counting Colonial, has been as follows:—

	1870.	1880.	Increase.
Nominal tonnage .	5,560,000	6,250,000	13 per cent
Carrying power .	9,720,000	16,630,000	70 „

If we were to include Colonial shipping it would be found that our flag now carries 56 per cent of the merchandise of all nations, against 51 per cent ten years ago.

Railway traffic has increased 62 per cent, the total of passengers and tons of goods carried having risen from 518 to 844 millions, but although the net earnings per mile are £176 more than in 1870, the net profit for capital is less, as the new lines constructed in the last ten years (especially the London Metropolitan) have been so costly as to raise the average capital per mile $18\frac{1}{2}$ per cent on all existing lines. The traffic shows thus:—

	1870.	1879.	Increase.
Miles open . .	15,537	17,696	14·20 per cent
Passengers per mile	22,450	35,540	58·25 „
Goods, tons „	10,970	12,150	11·05 „
Receipts „	£2,794	£3,356	19·86 „
Expenses „	1,290	1,676	19·79 „
Net earnings „	1,504	1,680	20·36 „
Profit on capital .	4·39 per cent	4·15 per cent	...
Capital per mile .	£34,200	£40,509	18·53 „

Telegraphs show an extraordinary increase, the number of messages having trebled (Table 15) since the Government purchased the lines and reduced the tariff. The average is now 77 messages per 100 inhabitants, against 32 in 1870.

The natural increase of population, or the excess of births over deaths, has amounted to 4,265,000, say 13·76

per cent ; but, as the net emigration¹ reached 965,000, the actual increase does not exceed 3,300,000, or 10·64 on the population of 1870. Taking the medium population of 1875, which was 32,855,000, we find the rates of births and deaths for the decade as follows :—

	Number.	Per 1000 inhab.
Births . .	11,151,000	33·98
Deaths . .	6,886,000	20·97
Increase .	4,265,000	13·01

At no previous period did the population rise three millions in ten years ; but the rate of increase was greater between 1820 and 1830, say 15 per cent, after deducting emigration. Comparing the decade just ended with the preceding one, we find a notable improvement, as the increase for ten years ending 1870 was only 8½ per cent.

Food-supply is so closely connected with population that every year Great Britain will be more and more dependent on foreign countries for grain and meat ; not merely the grain for our own use, but also much of what is needed for our cattle. The total annual consumption of grain and meat are as follows :—

	British.	Imported.	Total.
Grain, bushels .	410,000,000	280,000,000	690,000,000
Meat, tons .	1,205,000	603,000	1,805,000

In a word, 33 per cent of the meat and 40 per cent of the grain that we consume is from foreign countries, together weighing 7½ million tons, equal to the total tonnage of the British merchant navy. The following statement shows the annual consumption per inhabitant :—

¹ The number of emigrants was 1,815,000 ; of immigrants, 850,000. Of the former, 66 per cent went to the United States, 11 per cent to Canada, 19 per cent to Australia, and 4 per cent to other parts.

	British.	Imported.	Total.
Grain, bushels .	11·90	8·12	20·02
Meat, lbs. .	78·26	40·84	119·10
Beer, gallons .	32·18	...	32·18
Spirits ,, .	0·71	0·19	0·90
Wine ,, .	...	0·51	0·51

The consumption of meat is more than double the European average (Table 26) ; and if we never imported a pound, our home supply alone would suffice to give our population almost as large an allowance per head as is actually consumed in Germany or France.

Surprising as it may appear, we use less money in Great Britain (compared with commerce and other industries) than any other country of Europe or America, as may be seen in Table 16. The total currency stands thus :—

	Millions sterling.	Ratio per inhab.	Ratio to commerce.
Gold . .	124	£3 12 0	18 per cent
Silver . .	19	0 11 0	3 „
Paper . .	45	1 6 0	7 „
	<hr/> 188	<hr/> £5 9 0	<hr/> 28 „

The Mint report shows that $40\frac{1}{2}$ millions in gold and $6\frac{1}{2}$ in silver have been coined since 1870, and the increase of paper money has been 4 millions in the same period. This, however, does not represent the total increase, as Australia coined $27\frac{1}{2}$ millions sterling, of which three-fourths came to England. British gold has, of course, been freely exported to Peru, Brazil, and other countries ; but the most of it must have found its way back again, since our net imports of specie for the last ten years were over 25 millions sterling.

As regards the earnings of the nation, we find an increase of 30 per cent in the income-tax returns ; but the actual increase has been no more than 20 per cent, the

income-tax only comprehending a limited number of persons. The total earnings (as in Table 20) were as follows :

	Millions sterling.		
	1870.	1880.	Increase.
Income-tax classes . .	445	578	133
Clerks, etc., exempted . .	187	150	62
Working-classes . .	329	428	
	<u>961</u>	<u>1156</u>	<u>195</u>

The annual expenditure is something under 1100 millions, the accumulation of wealth ranging from 60 to 65 millions per annum. Here arise two questions of the highest importance, viz.—

1st, Is the average income, after payment of taxes, greater or less now than in 1870 ?

2d, Is the public welfare extending to a wider circle, or are the rich growing richer, the poor poorer ?

In answer to the first question it suffices to adduce the following figures :—

	1870.	1880.
Average income . . .	£30 10 6	£33 10 4
Taxes and rates . . .	3 13 5	3 19 9
Net income	<u>£26 17 1</u>	<u>£29 10 7</u>

Not only is the net income per inhabitant 10 per cent higher than it was ten years ago, but it far exceeds that of any other nation in the world, being more than double the European average (Table 20) and 16 per cent greater than in the United States.

As to the second question, all indications point to one conclusion, namely, that the number of persons in easy circumstances, or at least above want, is increasing much faster than population. Three indisputable proofs may be quoted :—

I. The number of paupers has declined 19 per cent, and the ratio to population is now but 3 per cent, against 4 per cent in 1870, viz.—

	1870.		1880.	
	No. of paupers.	Ratio to pop.	No. of paupers.	Ratio to pop.
England .	1,079,000	4·79	838,000	3·29
Scotland .	126,000	3·78	98,000	2·68
Ireland .	74,000	1·37	101,000	1·88
U. Kingdom	1,279,000	4·10	1,037,000	3·01

II. The consumption of tea, coffee, sugar, and tobacco, per inhabitant has increased all round about 20 per cent, being double the increase of net income as shown above, the prices of these commodities having, moreover, fallen in the interval.

	1870.	1879.	Rate of increase.
Tea, pounds .	3·81	4·70	23 p. cent
Coffee, „ .	0·98	1·00	2 „
Sugar, „ .	47·23	66·24	40 „
Tobacco „ .	1·34	1·41	5 „

III. The savings banks, which serve to gauge the progress of wealth among the working-classes, show an increase of 30 per cent in ten years, viz.—

	Amount.		Ratio per inhabitant.				Increase.
	1870.	1880.	1870.	1880.			
England .	£46,229,000	£65,396,000	£2 1 1	£2 11 4	25	p. cent	
Scotland .	4,132,000	6,863,000	1 4 9	1 17 6	50	„	
Ireland .	2,696,000	3,550,000	0 9 11	0 13 3	33	„	
U. Kingdom	£53,057,000	£75,809,000	£1 14 1	£2 3 11	30	p. cent	

Let us now consider taxation, including national and local, which has risen 20 per cent in the last ten years, viz.—

	Amount.		Ratio per inhabitant.	
	1870.	1880.	1870.	1880.
National .	£75,434,000	£81,265,000	£2 8 4	£2 7 1
Local .	39,090,000	56,130,000	1 5 1	1 12 6
Total .	£114,524,000	£137,395,000	£3 13 5	£3 19 7

From the above it appears that taxation is now six shillings per inhabitant more than in 1870, that is 8 per cent heavier. But such a mode of estimating the incidence of taxation would be most fallacious, since the ability to support such burthen depends on the industry and income of each nation. Judged in this manner we find as follows—

	Taxes compared with industry.		Taxes compared with earnings.	
	1870.	1880.	1870.	1880.
Great Britain .	6·73	6·80	11·92	11·88
Europe . .	9·14	9·96	13·87	15·39
Difference .	2·41	3·16	1·95	3·51

Ten years ago the average incidence of taxation for Europe, compared with earnings, was 17 per cent heavier than in Great Britain: at present the relative difference is 30 per cent. This arises in a great measure from the fact that our military expenditure is diminishing, while that of the Continent is growing apace (Tables 23-24), as shown thus:—

	1869.	1880.
British army and navy .	£26,400,000	£26,000,000
Ratio per inhabitant .	£0 16 8	£0 15 1
Ratio to earnings . .	2·75	2·26
Europe, ratio per inhabitant	£0 7 10	£0 9 2
Do. ratio to income	2·83	3·02

In fact, the Continental armaments absorb more than 3 per cent of the people's earnings, which is relatively one-third more than in the United Kingdom.

National debt is decreasing in this country, being 24 millions less than it was in 1870 (Table 19), whereas the aggregate of Continental debts has risen 70 per cent, viz.—

	Millions sterling.		Ratio per inhabitant.	
	1870.	1880.	1870.	1880.
Great Britain .	798	774	£25 7 0	£22 9 0
Continent .	2142	3679	7 16 4	12 10 3
Europe .	2940	4453	£9 12 10	£13 11 7

It is nevertheless true that, while our national debt has been reduced, the amount of municipal and other local debts has increased in a much higher degree, viz.—

	1870.	1880.
Local debts . .	£84,000,000	£140,000,000
Ratio per inhabitant	£2 13 4	£4 1 3

The increase in this respect is mainly due to expenses incurred for education and hygiene, which have produced great and beneficial results.

Public instruction shows the following advance in ten years :—

	School-children.		Ratio to population.	
	1870.	1880.	1870.	1880.
England .	1,565,000	3,123,000	6·95	12·24
Scotland .	215,000	448,000	6·45	12·25
Ireland .	328,000	376,000	6·05	7·02
United Kingdom	2,108,000	3,947,000	6·75	11·44

Hygiene has also made remarkable progress, except in Ireland, where it is so shamefully neglected that Dublin and Belfast have the heaviest death-rates in the United Kingdom, being almost on a par with Tunis or Naples. The mortality of England and Scotland has declined nearly 10 per cent, whereas in Ireland the rate for 1879 was almost 20 per cent higher than in 1870 (the mortality

from insufficient food not exceeding 5 per cent of such increase) :—

	Deaths.		Per 1000 inhabitants.	
	1870.	1879.	1870.	1879.
England . .	515,329	528,194	22·90	20·70
Scotland . .	74,067	73,329	22·20	20·03
Ireland . .	90,695	105,432	16·78	19·67
United Kingdom	680,091	706,955	21·79	20·49

The saving of life, from this reduction of 13 per 1000 in the death-rate, is equal to 455,000 persons annually, representing a money-value of 109 millions sterling at the ordinary capital worth (£240) of each inhabitant of the United Kingdom, or four times the actual yearly product of his or her labour (Table 2).

BALANCE-SHEET OF FRANCE.

NOTWITHSTANDING the disastrous war of 1870-71, and the loss of two of her finest provinces, France shows a greater sum of industry than eleven years ago:—

	Millions sterling.		Shillings per inhabitant.	
	1869.	1880.	1869.	1880.
Commerce . .	249	332	129	177
Manufactures .	439	485	231	262
Mining . .	9	12	5	6
Agriculture .	412	400	217	216
Carrying Trade .	33	50	17	27
Banking . .	30	34	16	18
Sundries . .	9	12	5	6
	<hr/> 1181	<hr/> 1325	<hr/> 620	<hr/> 712

The aggregate increase has been at the rate of $11\frac{1}{2}$ per cent, against 20 per cent in Great Britain. The ratio per inhabitant has risen 15 per cent against 10 per cent in Great Britain. Every branch shows a rise except agriculture, which suffered heavily from the Phylloxera, although the loss is partly repaired by an increase of 75 per cent in the area under beet-root. Shipping is also believed to have declined, but it will be seen in Table 9 that the carrying-power on sea has increased no less than $22\frac{1}{2}$ per cent, which, however, has not kept pace with the growth or requirements of trade.

Commerce has risen 30 per cent, and if the balance of trade signify anything, it is remarkable that the increase

has been so one-sided without affecting the prosperity of the country, since we find imports have risen 55, exports only 6, per cent.

	Millions sterling.		Per inhabitant.	
	1869.	1880.	1869.	1880.
Imports .	126	194	£3 5 5	£5 7 2
Exports .	123	131	3 3 11	3 10 7
Total .	249	325	£6 9 4	£8 17 9

Imports are $48\frac{1}{2}$ per cent over exports (just the same ratio as in Great Britain), and yet France is not rushing to bankruptcy, but accumulating wealth every year, as shown by the rise in legacy returns.¹ There is an increase of 69 per cent in port entries, and here we note a comparative decline of French shipping.

Port Entries.		1869.	1879.	Increase.
French flag .	Tons.	2,285,000	3,074,000	35 per cent
Foreign flags	„	4,488,000	8,282,000	84 „
		6,773,000	11,356,000	69 „

Steamers now form 65 per cent of the entries, against 45 per cent in 1869; they constitute, moreover, a larger ratio than in Great Britain. The nominal tonnage of the French merchant navy was superior to the German in 1869, but is now inferior (Table 9), although the carrying-power of the former is still 5000 tons over the latter. French shipping shows as follows:—

	1869.	1879.	Increase.
Nominal tonnage .	1,072,000	933,000	—
Carrying-power .	1,598,000	1,960,000	22½ p. cent

Carrying-trade has increased more than one-half, especially as regards railways, whose traffic has risen 64 per cent:—

¹ See *Progress of the World* (Stanford, 1880), page 43.

	1869.	1880.
Railways . . .	£24,950,000	£40,960,000
Canals . . .	2,500,000	2,500,000
Shipping . . .	5,600,000	6,900,000
Total . . .	<u>£33,050,000</u>	<u>£50,360,000</u>

New railways constructed since 1869 (Table 14) represent an outlay of 126 millions sterling, the capital of existing lines being equal to £11 : 8s. per inhabitant, an increase of £3 : 13s. in the said interval. The traffic of French and English lines compares thus :—

	French.	British.
Receipts per mile . .	£2,701	£3,356
Working expenses . .	1,377	1,676
Net earnings . . .	1,324	1,680
Profit on capital . .	4·85	4·15
Construction per mile .	£27,280	£40,509

Every passenger or ton of merchandise carried paid 40 pence, as compared with 38 pence in Germany, and 17 pence in Great Britain. The gross receipts for 1880 were £4,300,000 over those of 1879.

Manufactures do not show the same increase in value as in the consumption of raw material :—

	1869.	1880.	Increase.
Manufactures . . .	£439,000,000	£485,000,000	10 per cent
Raw cotton, wool, etc., lbs.	862,000,000	1,022,000,000	19 „
Iron . . . Tons	1,230,000	1,520,000	24 „

The consumption of raw cotton (Table 5) has risen 30 per cent; of wool 20 per cent. Silk has declined one-third, the value of the manufacture having fallen from 38 to 26 millions sterling, and the exports from 21 to 10 millions. Sugar manufacture has risen from 273,000 to 475,000 tons, an increase of 75 per cent.

Mining has risen 33 per cent (Table 6), the value of minerals being now one-fifth of what it is in Great Britain,

and exceeded by only one Continental nation, namely Germany.

Telegraphs show an increase of 140 per cent in the number of messages (Table 15), the ratio being 40 per 100 inhabitants, against 15 in 1869. It is still only half the British average, but slightly ahead of the German.

Money is much more abundant than in other countries, as shown in Table 16. It stands as 99 per cent compared with commerce, whereas in Great Britain we do with 28 per cent; and the various kinds of currency give the following ratio per inhabitant as compared with Great Britain:—

	Millions sterling.		Ratio per inhabitant.	
	France.	Great Britain.	France.	Great Britain.
Gold .	147	124	£3 19 0	£3 12 0
Silver .	85	19	2 6 0	0 11 0
Paper .	90	45	2 9 0	1 6 0
Total .	322	188	£8 14 0	£5 9 0

The French mint coined in ten years over $51\frac{1}{2}$ millions sterling, of which 61 per cent was gold (Table 17), and 39 silver. Much of the gold coin, however, has disappeared since Germany re-minted 50 million Napoleons.

National earnings have risen from 788 to 927 millions sterling, and although taxation has increased 40 per cent since the war, the net income per inhabitant is higher now than it was in 1869, viz.—

	Millions sterling.		Ratio per inhabitant.	
	1869.	1880.	1869.	1880.
Income .	788	927	£20 14 8	£23 1 0
Taxes and Rates	119	162	3 2 6	4 8 7
Net income	669	765	£17 12 2	£18 12 5

The growing diffusion of wealth is shown by the in-

creased number of holders of “Rentes” and depositors in savings banks :—

	1872.	1879.
Number of Rente-holders . . .	2,147,130	4,404,763
Depositors in savings banks . . .	2,021,228	3,050,100
Total	<u>4,168,358</u>	<u>7,454,863</u>

The thrifty habits of the people enable them to support with ease a degree of taxation (Table 21) that to many nations would seem excessive. Summing up all kinds of taxes, Frenchmen pay 9s. more than we do in Great Britain, although their average earnings are one-third less than ours. In other words, Frenchmen pay $17\frac{1}{2}$ per cent taxes on their income, against 12 per cent in Great Britain.

Military expenditure is a great burthen (Tables 23, 24), having risen from 13s. per inhabitant in the last year of Napoleon the Third's reign, to 15s. 6d. in 1880; that is, from 25 to 29 millions sterling. The increase is in the land forces, the navy vote being 21 per cent less than in 1869.

National debt has risen (Table 19) almost 300 millions since the fall of the Empire, which includes 220 millions paid to Germany. According to the official report the war cost France 350 millions, without including the value of the two provinces ceded to Germany, say 280 millions. Nevertheless, the capital value of France in 1880 (according to insurance estimates) is 295 millions sterling higher than in 1869, so that the increase of wealth exceeds that of national debt, although the ratio of the latter is higher :—

	Millions sterling.		
	1869.	1880.	Increase.
Value of France . . .	7122	7417	295
National debt . . .	468	750	282

The increase of wealth dates from 1872.

	Millions sterling.		
	1872.	1880.	Increase.
Properties insured . . .	3668	3938	270
Land and uninsured prop.	3210	3479	269
Value of France . . .	6878	7417	539

The value of uninsured perishable property is supposed to be only 855 millions. The increase of insurances in 1879 was $83\frac{1}{2}$ millions. The ratio of public debt to capital is now 10·13 per cent, against 6·69 before the Franco-German war. It is still below the average of European debt (Table 19), which is over 12 per cent.

The above is irrespective of local debts, which sum up 134 millions, including 85 millions spent by Baron Haussmann in making the new boulevards of Paris: these local debts have not increased much since 1870.

Population has declined a million owing to the cession of Alsace and Lorraine with 1,550,000 souls, but if we consider the present limits of France in 1870 and 1880, we find an increase of 612,000, which, added to the number slain in war, shows that the *normal* rate of increase has been nearly four per cent. The actual increase has been less than two per cent, viz.—

Population in 1870 ¹ . . .	36,554,000
Excess of births over deaths . . .	722,000
Emigration	110,000
Population in 1880	37,166,000

On the basis of the census of 1866, and that of 1876, we can compare the precise rate of mortality and of natural increase from the official returns of births and deaths in 1867 and 1878, viz.—

¹ Excluding Alsace and Lorraine.

	1867.	1878.
Population	38,067,000	37,040,000
Births	1,007,500	937,211
Deaths	866,900	839,036
Surplus births	140,600	98,175
Births per 1000 inhabitants .	26·47	25·33
Deaths „ „	22·78	22·67
Increase „ „	3·69	2·66

It is remarkable that the birth-rate has declined relatively $4\frac{1}{2}$ per cent since the war, while it has risen (page 65) $\frac{1}{2}$ per cent in Germany. In the ten years after Waterloo it was 40 per cent above par in Great Britain, from which we may infer that it increases only after victorious wars. In the above figures it will be observed that there is a trifling decline of death-rate which may be the result of sanitary improvement in towns. During the years 1870-1871, the deaths exceeded births by 548,280, the former being much above, and the latter much below, the normal rate. The loss in population by the war is shown thus:—

Excess of deaths	589,280
Deficit of births	127,200
Population of Alsace and Lorraine	1,550,000
Total loss	<u>2,266,480</u>

Food-supply is assuming the same phase as in England, the country importing grain and meat more largely every year, although the increase of population is trifling. It is manifest that the French people find it cheaper to import whatever they require beyond a certain quantity, than to increase production by scientific farming. At present the annual consumption of grain and meat is as follows:—

	French.	Imported.	Total.
Grain, million bushels	740	170	910
Meat, tons	1,002,000	226,000	1,228,000

Taking the consumption per inhabitant, and comparing it with Great Britain (page 47), we find the French use 20 per cent more grain, and 30 per cent less meat, than we do. The principal items of food give the following ratios per inhabitant :—

	French.	Imported.	Total.
Grain, bushels . . .	19·94	4·08	24·02
Meat, lbs.	68·06	13·82	81·88
Wine, gallons . . .	17·85	0·80	18·65
Beer „	5·15	—	5·15
Spirits „	0·88	—	0·88

France no longer grows enough wine for her own population, the net imports in 1880 amounting to 3 millions sterling, say 30 million gallons. The consumption of home-produced meat averages 51 lbs. beef, 10½ mutton, and 6½ of pork and goat's-flesh. The number of cattle and sheep declines nearly 1 per cent per annum, so that the imports of meat must increase. So must the importation of wine, as the vintage, which averaged 1250 million gallons for the ten years 1868-77, has fallen to 670 million gallons in 1880, and is more likely to decline further than to show any recovery.

BALANCE-SHEET OF GERMANY.

THIS being the first decade of the new German Empire the progress made may seem to be rather the effect of conquest and annexation than of persevering industry. It is unquestionable that had the war of 1870 resulted differently the development of Germany would not have been so signal, nor would two of the most industrious provinces of France help to swell the returns of the

Fatherland, but the march of industry is still observable in the increased ratio per inhabitant, viz.—

	Millions sterling.		Shillings per inhabitant.	
	1869.	1880.	1869.	1880.
Commerce . .	270	384	142	170
Manufactures .	341	427	180	189
Mining . .	14	21	7	9
Agriculture .	310	340	163	151
Carrying trade .	38	64	20	28
Banking . .	25	28	13	12
Sundries . .	4	5	2	2
Total . .	1002	1269	527	561

The aggregate of industries has risen 27 per cent, as compared with 11 per cent in France, and 20 per cent in Great Britain. This has, of course, been in great measure due to the enormous increase (18 per cent) in population, for we find the average per head is only $6\frac{1}{2}$ per cent higher than in 1869, against 15 per cent in France, and 9 in Great Britain.

Commerce has risen 42 per cent, and, contrary to what has occurred in France and England, the exports have grown more than imports, the balance of trade being therefore more favourable :

	Millions sterling.		Shillings per inhabitant.	
	1869.	1880.	1869.	1880.
Imports .	141	195	74	86
Exports .	129	189	68	84
Total .	270	384	142	170

Imports are only 3 per cent over exports, against 9 per cent in 1869. Port entries have risen 75 per cent, being now 15 tons (instead of 10) for every 100 inhabitants, a rise resulting partly from the higher ratio of steam-power, which is now 63 per cent, against 46 per cent in 1869, of

all port-entries (Table 12). The merchant navy has risen nominally 15 per cent, but much more in carrying-power, viz.—

	1869.	1879.	Increase.
Nominal tonnage .	982,000	1,171,000	19 per cent
Carrying-power .	1,310,000	1,955,000	50 „

Germany has outstripped France since 1870 in nominal tonnage,¹ and boasts the largest merchant-navy among Continental nations, after Sweden and Norway. Ship-building, however, has not kept pace with commerce, for the ratio of entries of the German flag is now hardly 35 per cent, against 40 per cent in 1872.

Carrying-trade on land and sea (Table 9) has risen 68 per cent, as follows :—

	1869.	1880.
Railways . .	£28,780,000	£52,300,000
Canals . .	4,200,000	4,500,000
Shipping . .	4,500,000	6,400,000
Total . .	<u>£37,480,000</u>	<u>£63,200,000</u>

Germany has spent the enormous sum of 244 millions sterling on new railways since the war, which has given her an increase of 9820 miles (Table 14), at an average cost of £24,800 per mile. There is no country but the United States that now exceeds Germany in length of railways, the capital thus employed being £9:17s. per inhabitant, against £5:4s. in 1870. The traffic earnings compare with those of British lines as follows :—

	German.	British.
Receipts, per mile . .	£2,477	£3,356
Working expenses, per mile .	1,513	1,676
Net earnings „ .	964	1,680
Profit on capital . .	4·66	4·15
Construction, per mile . .	£20,690	£40,510

¹ In nominal tonnage Germany is 240,000 tons ahead, but in

Every passenger or ton of goods carried paid 38 pence against 40 in France, and 17 pence in Great Britain.

Telegraph lines have more than doubled in length, and the ratio of messages (Table 15) is higher than for Europe in general, but less than half that of Great Britain, and even a little below France. The increase since 1869 is shown thus :—

	1869.	1879.
Miles of line	15,600	37,500
Messages per 100 inhab. .	22	33

Manufactures have risen little more than 25 per cent, but the consumption of raw material has increased (Tables 5 and 6) in far higher ratio.

	1869.	1879.	Increase.
Cotton, wool, etc. million lbs.	649	960	48 per cent
Iron, tons	1,222,000	2,190,000	79 „

German factories consume (Table 5) almost 50 per cent more cotton than wool, whereas in France wool is 30 per cent higher. The manufacture of iron has increased more than steel, as shown by the aliquot parts (Table 6) of these industries in 1869 and 1879, viz.—

	Iron.		Steel.	
	1869.	1879.	1869.	1879.
Germany	11·74	13·70	28·82	16·95
Other countries	88·26	86·30	71·18	83·05
	<u>100·00</u>	<u>100·00</u>	<u>100·00</u>	<u>100·00</u>

The output of coal has kept pace with that of iron, having reached 53 million tons in 1879, an increase of 75 per cent. The production of iron ore was 6 million tons, against $3\frac{1}{4}$ millions in 1869.

Money is by no means abundant as compared with carrying-power the French merchant navy exceeds by 5000 tons (see page 54).

other countries (Table 16), being six shillings per inhabitant less than the European average. The currency compares with population and commerce as follows:—

	Millions £.	Per Inhabitant.	Ratio to Commerce.
Gold .	66	£1 9 4	17 per cent
Silver .	43	0 19 1	11 „
Paper .	42	0 18 8	11 „
Total .	151	£3 7 1	39 „

The new gold currency (Table 17) has been made chiefly out of 50 million Napoleons re-minted, the sum minted since 1870 being $108\frac{1}{4}$ millions sterling, of which $87\frac{1}{4}$ millions gold.

National earnings have risen from 702 to 851 millions sterling, nearly 22 per cent, but taxes and population have so much increased that the average German is poorer than he was before the Franco-German war, viz.—

	Millions Sterling.		Ratio per Inhabitant.	
	1869.	1880.	1869.	1880.
Income . .	702	851	£18 10 2	£18 14 6
Taxes and rates .	64	101	1 13 8	2 4 10
Net income .	638	750	£16 16 6	£16 9 8

Thus, while the Frenchman's net income (page 56) has risen 6 per cent, the German's has fallen $2\frac{1}{2}$ per cent.

The incidence of taxation is, meantime, very different, being only 12 per cent of earnings in Germany against $17\frac{1}{2}$ per cent in France. Military expenditure has risen from 80 to 110 pence per inhabitant, and the cost of each soldier from £31 to £45 per annum. This is below the European average (Table 24), and the cost on the population is also light, compared with France or England.

National debt of the Empire, and the several States, amounts to 229 millions sterling, an increase of 81 millions.

It is one of the lightest debts in Europe, not quite 4 per cent of the value of the Empire (Table 19) against $8\frac{1}{2}$ per cent in Great Britain, and 10 per cent in France. The Empire represents in value 725 millions sterling more than in 1870, including 280 millions for Alsace and Lorraine.

Population has increased more rapidly since the war, the birth-rate having risen $\frac{1}{2}$ per cent, whereas it has declined $4\frac{1}{2}$ per cent in France (page 59). The death rate is, moreover, much less than before the war, so that the natural increase per annum is $1\frac{1}{2}$ per 1000 inhabitants higher.

	1869.	1878.
Population	38,425,000	44,211,000
Births	1,483,012	1,714,456
Deaths	1,055,010	1,157,950
Surplus of births	428,002	556,506
Births per 1000 inhabitants	38.60	38.78
Deaths " "	27.46	26.20
Natural increase " "	11.14	12.58

The net emigration averages 98,700 persons yearly, so that the actual increase of population is about 460,000 per annum against 330,000 in Great Britain, and 61,000 in France. As the food-supply diminishes, while population increases, and as the net income per inhabitant is clearly declining, it is highly probable that emigration will augment year by year till an equilibrium be established.

Food-supply is now so much dependent on importation, that Germany does not feed much more than four-fifths of her population on native products, viz.—

	German.	Imported.	Total.
Grain, million bushels	950	115	1065
Meat, thousand tons	1340	360	1700

The importation of meat exceeds that in France, for the Germans now consume more meat than the French (see page 60), as shown by the ratio per inhabitant, viz.—

	German.	Imported.	Total.
Grain, bushels . . .	21·15	2·56	23·71
Meat, lbs.	66·63	17·88	84·51
Wine, gallons . . .	2·10	1·10	3·20
Beer, „	19·44	—	19·44
Spirits, „	1·35	—	1·35

The consumption of grain is only exceeded in Denmark and France, that of meat only in Great Britain, among the nations of Europe.

BALANCE-SHEET OF RUSSIA.

RUSSIA has advanced 21 per cent in industry, in spite of the war with Turkey. Although the ratio per inhabitant is still below half the European average (Table 2), it has risen 13 per cent since 1870, viz.—

	Millions sterling.		Shillings per inhabitant.	
	1870.	1879.	1870.	1879.
Commerce	110	191	30	48
Manufactures	205	229	55	58
Agriculture	350	370	95	93
Carrying trade . . .	24	40	6	10
Mining	8	11	2	3
Banking and fishing .	16	19	4	5
	<u>713</u>	<u>860</u>	<u>192</u>	<u>217</u>

The balance of trade is in favour of Russia, and yet it is the only country of Europe that exports specie on a considerable scale every year. The value of exported products is about a shilling per inhabitant over imports, viz.—

	Millions sterling.		Shillings per inhabitant.	
	1870.	1878.	1870.	1878.
Imports .	53	94	14½	23½
Exports .	57	97	15½	24½
Total .	110	191	30	48

If it were wise or lawful to dispute official returns, we might question whether the commerce of Russia has in reality risen 74 per cent, although we certainly find an increase of 123 per cent in the port entries (Table 12). Is it not possible that the Custom-House valuers have been influenced by prices in paper roubles, of which three are equal to two in coin? As regards port entries the average is now 8 tons per 100 inhabitants, compared with 15 in Germany and 75 in Great Britain. Steamers form 70 per cent of the total tonnage of entries.

The imperial merchant navy, including that of Finland, shows a remarkable advance since 1870, viz.—

	1870.	1879.	Increase.
Nominal tonnage .	380,000	650,000	71 per cent
Carrying power .	524,000	935,000	78 „

Carrying-trade by land and sea has grown in the following manner:—

	1870.	1879.
Railways .	£16,140,000	£30,240,000
Canals .	6,000,000	6,500,000
Shipping .	1,900,000	3,300,000
Total .	£24,040,000	£40,040,000

In 1870 the canals carried two-thirds of the goods traffic of the empire, but at present the railways carry at least 60 per cent of the total. Since 1870 Russia has built 7600 miles of railway at a cost of 145 millions sterling. The total length is now 14,700 miles, representing a capital cost equal to 68s. per inhabitant, the lowest

ratio in Europe (Table 13). The traffic compares with British lines as follows :—

	Russian.	British.
Receipts per mile . . .	£2,284	£3,356
Working expenses per mile . .	1,380	1,676
Net earnings „ . . .	904	1,680
Profit on capital . . .	4.82	4.15
Construction per mile . . .	£18,450	£40,510

Each passenger or ton carried paid 98 pence, against 17 pence in Great Britain.

Telegraphs have doubled in mileage and number of messages (Table 15), the latter having risen from 4 to 7 per 100 inhabitants, but the ratio is still below one-fourth of the European average.

Money is less abundant for population than in the rest of Europe (Table 16), but far too plentiful if compared with commerce, being double the European average. The enormous inflation of paper money is an evil, the issue having risen in ten years from 117 to 178 millions sterling. Russia mints on an average two millions sterling of gold coin and one of silver yearly, much of which is exported, the net outflow of coin and bullion being, for an average of ten years, £2,030,000 per annum. The actual currency is :—

	Millions sterling.	Ratio to Population.	Ratio to Commerce.
Gold . . .	22	£0 5 6	11 per cent
Silver . . .	12	0 3 0	6 „
Paper . . .	178	2 4 6	93 „
Total . . .	212	£2 13 0	110 „

Mining has increased in three items, namely gold, iron, and coal, the aggregate value being almost 40 per cent higher than in 1870. The annual production of gold is 40 tons, worth $5\frac{1}{2}$ millions sterling, that of coal 7 million tons, and of iron 400,000 tons.

National earnings have increased faster than popu-

lation, but not in a degree sufficient to keep pace with the swollen expenditure consequent on the invasion of Turkey. Thus the people are poorer than ten years ago, which may in some measure explain the uneasy condition of affairs :—

	Millions sterling.		Ratio per inhabitant.			
	1870.	1880.	1870.		1880.	
Earnings . . .	566	632	£7	13 4	£7	18 1
Taxes and rates . .	74	102	1	0 1	1	5 6
Net earnings . . .	492	530	£6	13 3	£6	12 7

Incidence of taxation has risen from 12 to 16 per cent of national earnings, the increase proceeding chiefly from the excessive military expenditure. Army and navy now absorb $5\frac{1}{4}$ per cent of the people's earnings, which is relatively 70 per cent heavier burthen than in France, and more than double the weight of this item in Great Britain. If Russia continue in this course it may entail great evils.

National debt has multiplied threefold since 1870 (Table 19), being now 682 millions sterling, or 19 per cent of the market value of the empire, against 10 per cent in France and $8\frac{1}{2}$ in Great Britain. It comprises the following items :—

	Millions sterling.
Paper money . . .	178
Foreign debt . . .	150
Internal funded . . .	160
Treasury bills . . .	83
Peasant loan ¹ . . .	70
Nicholas Railway . . .	23
Polish debt . . .	11
Finland debt . . .	7
	<u>682</u>

Russia-in-Europe, including Poland and Finland, has

¹ If the Peasant loan be included in the Internal funded, the total will then be 612 millions.

the highest birth-rate of any country in the world, and also the highest death-rate. In the present decade, however, taking for example the year before the war with Turkey, the tendency was to a higher birth-rate and a lower death-rate than before 1870 :—

	Number.		Ratio per 1000 inhabitants.	
	1869.	1876.	1869.	1876.
Births .	3,178,970	3,545,712	43·53	45·71
Deaths .	2,450,362	2,474,075	33·57	31·89
Increase	728,608	1,071,637	9·96	13·82

The production of food is sufficient for 90 millions of people, or ten millions more than the actual population :—

	Quantity.		Ratio per inhabitant.		Surplus
	Production.	Consumption.	Production.	Consumption.	
Grain, million bushels	1,620	1,440	20·22 bushels.	17·97	2·25
Meat, tons	2,116,000	1,925,000	59·34 lbs.	54·05	5·29

The people are therefore by no means so ill-fed as is commonly supposed, but rather better than in many countries (Table 25).

BALANCE-SHEET OF AUSTRIA-HUNGARY.

THE progress of this empire during the past ten years has been very satisfactory. It is true that the annexation of Bosnia-Herzegovina gave an accession of 3 per cent in population and 5 per cent in farming-stock to the Austrian monarchy, but the increase in all other regards is purely the result of industry.

	Millions sterling.		Shillings per inhabitant.	
	1870.	1878.	1870.	1878.
Commerce .	83	140	46	72
Manufactures	183	206	102	105
Agriculture .	240	263	133	135
Carrying trade	16	24	9	12
Banking .	14	17	8	9
Mining .	5	7	3	4
Total .	541	657	301	337

The aggregate of industries has risen 21 per cent, and the ratio per inhabitant 12 per cent; the latter is greater than the rise in Germany, but much less than in France. Every branch shows a rise except agriculture, which has been about stationary.

Commerce not only indicates a great development, but a favourable balance of trade, as shown by the following statement:—

	Millions sterling.		Shillings per inhabitant.	
	1870.	1878.	1870.	1878.
Imports . .	43	72	24	37
Exports . .	40	68	22	35
Total . .	83	140	46	72

Although the balance of trade is so even, the bullion current of the last ten years shows a surplus export of £140,000 per annum.

Port entries have risen 60 per cent, and the increase of Austrian shipping has been 28 per cent. The proportion of foreign entries was 18 per cent in 1870, having since fallen to 15 per cent. Steamers now form a larger ratio of entries than in any other country of Europe, having risen from 50 to 77 per cent. The increase of the imperial merchant flag has been as follows:—

	1870.	1879.	Increase.
Nominal tonnage .	290,000	330,000	14 per cent
Carrying power .	440,000	565,000	28 „

The carrying trade (Table 9) has increased over 50 per cent, viz.—

	1870.	1880.	Increase.
Railways .	£13,234,000	£21,100,000	60 per cent
Danube .	1,000,000	1,100,000	10 „
Shipping .	1,500,000	1,900,000	27 „
Total	<u>£15,734,000</u>	<u>£24,100,000</u>	<u>52 „</u>

New railways constructed since 1870 amount to 6254 miles, which cost 132 millions sterling; the capital is now 130 shillings per inhabitant, against 68 in 1870. It is still below the European average (Table 14). Traffic compares with British lines as follows:—

	Austrian.	British.
Receipts per mile . .	£1760	£3356
Working expenses per mile .	959	1676
Net earnings „ .	801	1680
Profit on capital . .	3.86	4.15
Construction per mile .	£20,970	£40,510

The net earnings were £824 per mile in 1879, but declined last year. Every passenger or ton carried paid 54 pence, or three times as much as in Great Britain.

Telegraph lines have doubled in length (Table 15), and the ratio of messages is now 23 per 100 inhabitants, against 14 in 1870. It is still below the European average.

Mining has risen more than 50 per cent, the principal items being coal and iron, viz.—

	1870.	1879.	Increase.
Coal, tons .	8,100,000	12,200,000	50 per cent
Iron ore, tons .	850,000	1,420,000	66 „
Steam-engines at work	510	960	90 „

Manufactures show a considerable advance in hardware, the production of steel having risen from 22,000 to 97,000 tons. The consumption of raw material for textiles (Table 5) has increased 15 per cent, from 263 to 305 million lbs., but the value of the goods produced has risen only 4 per cent.

Money is not abundant, the stock of coin (Table 16) for population being the smallest of any country in Europe. There is a fair supply of paper money, which is almost at par, and the total currency stands thus:—

	Millions sterling.	Per inhabitant.	Ratio to commerce.
Gold	9	£0 4 6	6 per cent
Silver	6	0 3 0	4 „
Paper	64	1 12 8	45 „
Total	79	£2 0 2	55 „

The Austrian Government coins an average of $2\frac{1}{2}$ millions sterling yearly, of which only £500,000 in gold, the rest in silver.

National earnings have risen from 403 to 460 millions sterling, about 14 per cent, and the net income per inhabitant is $4\frac{1}{2}$ per cent higher than in 1870, viz.—

	Millions sterling.		Per inhabitant.	
	1870.	1880.	1870.	1880.
National income	403	460	£11 3 10	£11 15 8
Taxes and rates	66	80	1 16 10	2 0 7
Net income	337	380	£9 7 0	£9 15 1

Incidence of taxation is almost $17\frac{1}{2}$ per cent of income, as compared with 12 per cent in Germany. It was only $16\frac{1}{2}$ per cent in 1870, but is rising on account of military expenditure, which shows as follows:—

	Expenditure.	Ratio per inhabitant.	Ratio of income.
1869	£10,400,000	£0 5 9	2.58
1880	13,200,000	0 6 9	2.90

National debt has risen 79 millions, or 23 per cent, but the empire is not poorer. The annexation of Bosnia (without paying a shilling of the Turkish debt) is an accession of 55 millions sterling, and the monarchy has gained altogether 220 millions since 1870, or 141 millions over debt. At present the national debt is equivalent to a mortgage representing 14 per cent of the value of the empire, as against 10 per cent in France.

Population has increased 9 per cent (Table 13), made up of 2,168,000 surplus of births over deaths, and 1,103,000 inhabitants of Bosnia. Birth-rate and death-rate are very high, as shown by the returns of 1870 and 1877, which indicate, moreover, a declining rate of increase—

	Number.		Ratio per 1000 inhab.	
	1870.	1877.	1870.	1877.
Births .	1,463,108	1,508,961	40·75	40·78
Deaths .	1,119,450	1,247,660	31·18	33·70
Increase .	343,658	261,301	9·57	7·08

The cholera of 1872-74 carried off 662,000 persons in Hungary and 345,000 in Austria, say 1,007,000 inhabitants, equal to 4 years of surplus births over deaths.

Food-supply shows a surplus of $\frac{3}{4}$ bushel of grain, and a deficit of nearly 1 lb. of meat per inhabitant (Table 25), while the average vintage gives 1·20th of a gallon of wine surplus, viz.—

	Quantity.		Per inhabitant.	
	Production.	Consumption.	Production.	Consumption.
Grain, million bush.	560	530	14·35 bush.	13·57
Meat, tons . .	960,000	975,000	55·10 lbs.	56·03
Wine, million gals.	290	288	7·55 gals.	7·50
Beer „ „	245	245	6·25 „	6·25
Spirits „ „	24	24	0·60 „	0·60

The consumption of grain per inhabitant is 4 bushels below the European average, and that of meat $1\frac{1}{2}$ lb.

below it. Nevertheless it can hardly be said that the heavy death-rate arises from insufficiency of food.

BALANCE-SHEET OF ITALY.

ITALY is a paradox, for while her finances are going from bad to worse her industrial advancement is unquestionable, as shown in the following summary :—

	Millions sterling.		Shillings per inhab.	
	1870.	1880.	1870.	1880.
Commerce . .	74	96	56	68
Manufactures . .	103	115	78	81
Agriculture . .	130	145	97	103
Carrying-trade .	8	12	6	8
Banking, mining, etc.	10	11	8	8
	<u>325</u>	<u>379</u>	<u>245</u>	<u>268</u>

The aggregate of industries has risen 16 per cent, and the average per inhabitant almost 10 per cent.

Commerce shows a pretty even balance of trade, the increase of exports being greater than of imports, viz.—

	Millions sterling.		Per inhabitant, shillings.	
	1870.	1880.	1870.	1880.
Imports .	40	49	30	35
Exports .	34	47	26	33
Total .	<u>74</u>	<u>96</u>	<u>56</u>	<u>68</u>

The increase of exports is even greater in quantity than value—

	1870.	1879.	Increase.
Wine, gallons . . .	4,950,000	23,350,000	370 per cent
Cattle, head . . .	150,320	167,770	11 „
Flax and hemp, tons . .	21,294	36,447	73 „
Drugs, and dye-stuffs, tons	23,269	41,718	78 „
Silk, tons . . .	2,165	3,041	40 „
Fruit, do. . . .	80,798	104,610	30 „

Thus the value of exports has risen 40, the weight 62, per cent.

Italy has made great strides in manufactures: the consumption of raw material for textiles (Table 5) has risen from 100 to 149 million lbs. In mining also we observe a notable advance, sulphur having risen from 173,000 to 218,000 tons, and lead ore from 16,000 to 29,000 tons. In fact the sole industry that has retrograded is shipbuilding, and if the Genoese shipwrights no longer turn out 100,000 tons of shipping yearly, it is perhaps because Italians find it cheaper to get iron vessels from the Clyde. Certainly the Minister of Marine is wrong in saying the merchant navy has declined, for it has increased as follows:—

	1870.	1879.	Increase.
Nominal tonnage . .	952,000	1,060,000	11 per cent
Carrying-power . .	975,000	1,315,000	34 „

Steamers are coming much more into use, forming at present 66 per cent of port entries, against 51 per cent in 1870.

Carrying-trade has risen more than one-third, viz.—

	1870.	1880.	Increase.
Railways . .	£4,800,000	£6,500,000	36 per cent
Shipping . .	3,400,000	4,500,000	33 „
	<u>£8,200,000</u>	<u>£11,000,000</u>	<u>35 „</u>

New railways since 1870 amount to 1270 miles, which cost 23 millions sterling, bringing up the average capital

(Table 14) from 57 to 70 shillings per inhabitant. The existing lines count 5096 miles, and the traffic compares with British as follows:—

	Italian.	British.
Receipts per mile .	£1,290	£3,356
Working expenses .	860	1,676
Net earnings .	430	1,680
Profit on capital	2·20	4·15
Construction per mile	£19,380	£40,510

Every ton or passenger carried paid 42 pence, against 17 pence in Great Britain.

Telegraphic business has increased more than in any other country of the Continent, having trebled in 10 years (the same as in Great Britain), but the ratio is still low (Table 15), only 22 for 100 inhabitants.

Money is abundant, the ratio to commerce (Table 16) exceeding 90 per cent, which is almost double the European average. However, the most part is, unfortunately, inconvertible paper currency, viz.—

	Millions sterling.	Per inhabitant.	Ratio to commerce.
Gold . .	8	£0 6 6	9 per cent
Silver . .	10	0 8 0	12 „
Paper . .	65	2 5 0	70 „
Total	83	£2 19 6	91 „

A project is under consideration to raise 24 millions by loan for the purpose of redeeming the paper-money. The coin minted (Table 17) since 1870 sums up £13,810,000, of which only £1,560,000 in gold, the rest silver.

National earnings have risen more than 8 per cent, but, as taxation has grown faster, the net income per inhabitant is less than it was ten years ago, viz.—

	Millions sterling.		Per inhabitant.	
	1870.	1880.	1870.	1880.
Income . . .	233	252	£8 16 2	£8 17 8
Taxes and rates .	66	79	2 10 1	2 16 4
Net income . .	167	173	£6 6 1	£6 1 4

Thus 31 per cent of the people's earnings goes to the tax collector, as compared with $17\frac{1}{2}$ per cent in France, and 12 per cent in Great Britain. The burthen is, moreover, increasing, for it was (Table 21) only 28 per cent in 1870.

Military expenditure is a tremendous incubus, having risen thus:—

	Expenditure.	Cost per inhabitant.	Ratio of earnings.
1869 . . .	£7,500,000	£0 5 8	3·22
1880 . . .	11,000,000	0 7 9	4·36

The burthen is therefore double what it is in Great Britain (page 50) although Italy has no colonial empire to protect.

National debt arises partly from the above cause, having increased 40 per cent in ten years, namely, from 374 to 522 millions sterling (Table 19), the amount being now equal to 28 per cent of the market value of the kingdom, against 10 per cent in France, and $8\frac{1}{2}$ per cent in Great Britain. It is true that Italy has grown 110 millions in wealth since 1870, but as the debt has risen 150 millions, the country is 40 millions poorer.

Population has increased a little more than 6 per cent, and would have risen nearly 8 per cent but for emigration. The outflow during the last ten years averaged 72,000 per annum, of which number about one-half returned. The account stands thus:—

Population in 1870 . . .	26,639,000
Excess of births . . .	2,053,000
Net emigration . . .	360,000
Population in 1880 . . .	28,332,000

The natural increase is apparently ascending, as the latest returns show a lower death-rate than ten years ago, viz.—

	Number.		Per 1000 inhabitants.	
	1870.	1878.	1870.	1878.
Births .	951,495	981,170	35·77	35·04
Deaths .	773,169	782,245	29·07	27·90
Increase .	178,326	198,925	6·70	7·14

Food-supply shows a small deficit of grain, but a surplus of meat and wine.

	Quantity.		Ratio per inhabitant.	
	Production.	Consumption.	Production.	Consumption.
Grain, million bush.	270	275	9·45	9·62
Meat, tons . . .	224,000	215,000	21·54	20·80
Wine, million gallons	660	637	23·44	22·57
Beer „	20	20	0·72	0·72

The consumption of grain is the lowest in Europe except Portugal, and that of meat below Portugal, so that, even allowing for chestnuts, the quantity of food consumed per inhabitant is insufficient to enable the people to work properly.

BALANCE-SHEET OF SPAIN.

SPAIN has made sufficient progress since 1870 to show what the country could do if Spaniards were practical people. It would be only necessary to sell or emancipate her colonies, dismiss one-half of the public employés, and renounce the system of persecuting foreign vessels in Spanish ports; then Spain would rapidly rise in the scale of nations from her present low rank. The decade, mean-

time, that has just closed, records the following advancement :—

	Millions sterling.		Shillings per inhabitant.	
	1870.	1879.	1870.	1879.
Commerce . . .	31	38	38	46
Manufactures . .	77	88	93	107
Agriculture . .	95	109	115	133
Carrying trade . .	5	9	6	11
Banking, mining, etc.	9	13	11	16
	<u>217</u>	<u>257</u>	<u>263</u>	<u>313</u>

The aggregate of industries has risen 18 per cent, the average per head the same, showing how much the country has recovered since the close of the civil war, although the ratio of industry per inhabitant (Table 2) is 38 per cent below par.

Commerce is inactive, having risen (Table 8) only 8s. per head since 1870, whereas Europe shows an advance of 23s. all round. The balance of trade is pretty even :

	Millions sterling.		Shillings per inhabitant.	
	1870.	1879.	1870.	1879.
Imports . .	15	20	18½	24
Exports . .	16	18	19½	22
Total . .	<u>31</u>	<u>38</u>	<u>38</u>	<u>46</u>

It is worthy of notice that Spain and Russia, the most backward nations in commerce, have the most favourable balance of trade, while the most prosperous countries have a heavy excess of imports every year (Table 8).

Although the merchant navy has notably increased (Table 10) since 1870, the proportion of Spanish vessels in all the port entries of Spain (Table 12) is still only 33 per cent, as it was ten years ago. The growth of shipping has been as follows :—

	1870.	1880.	Increase.
Nominal tonnage . .	385,000	461,000	20 per cent
Carrying power . .	565,000	1,005,000	77 „

Carrying trade has increased on land and sea in the following manner :—

	1870.	1880.	Increase.
Railways . .	£3,310,000	£5,240,000	57 per cent
Shipping . .	2,000,000	3,500,000	75 „
Total . .	£5,310,000	£8,740,000	64 „

New railways since 1870 have cost 19 millions sterling, and brought up the total to 4520 miles, representing a capital (Table 14) of 89s. per inhabitant, against 66s. in 1870. The traffic compares with British lines as follows :—

	Spanish.	British.
Receipts per mile . . .	£1,204	£3,356
Working expenses . . .	516	1,676
Net earnings . . .	688	1,680
Profit on capital . . .	4·14	4·15
Construction per mile . .	£16,610	£40,510

Every passenger or ton carried paid 45 pence, as compared with 17 pence in Great Britain. The former includes a charge of 10 per cent on passengers' tickets for an escort of Guardia Civil (against brigands).

Telegraph messages (Table 15) have doubled in ten years, and are now 13 per 100 inhabitants, or nearly half the ordinary European average.

Mining has flourished in late years, at present reaching seven millions sterling per annum, including lead, iron, copper, and quicksilver, in almost equal portions. This industry is chiefly in the hands of English joint-stock companies.

Manufactures have risen only 14 per cent in value, but much more in quantity. The consumption of textile raw stuff is now 142 million lbs., against 109 millions in 1870,

a rise of 30 per cent. The textile manufactures stand for 22 millions sterling, but in reality are worth only 15 millions. Protection duties give them a fictitious value, onerous to the nation at large.

Agriculture has advanced 15 per cent (against 4 per cent for Europe in general), but this is only the natural revival after the conclusion of civil war. The principal agricultural exports nearly doubled, viz.—

	1870.	1877.	Increase.
Wine, gallons .	27,740,000	50,600,000	83 per cent
Fruit, tons .	67,509	113,383	69 „
Oil „ .	6,110	9,540	55 „
Cattle, head .	74,700	144,800	93 „

If military conscription were abolished, and no more young men drafted yearly to Cuba, agriculture would advance even faster.

Money is very abundant, the ratio of coin for population being six times greater than in Austria, and four times more than in Italy. As compared with commerce, Spain uses $4\frac{1}{2}$ times as much money as we do in Great Britain. The currency is as follows :—

	Millions sterling.	Per inhabitant.	Ratio to Commerce.
Gold .	26	£1 10 10	70 per cent
Silver .	14	0 16 8	36 „
Paper .	$9\frac{1}{2}$	0 11 4	25 „
Total .	<u>49$\frac{1}{2}$</u>	<u>£2 18 10</u>	<u>131 „</u>

National earnings have risen faster than taxes, and the net income per inhabitant is 18 per cent higher than in 1870 :—

	Millions sterling.		Per inhabitant.	
	1870.	1880.	1870.	1880.
Income .	159	186	£9 13 0	£11 5 6
Taxes and rates	34	38	2 1 2	2 6 2
Net Income	<u>125</u>	<u>148</u>	<u>£7 11 10</u>	<u>£8 19 4</u>

Thus the incidence of taxation, which was 21 per cent of income in 1870, has declined to $20\frac{1}{2}$ per cent, being a little more than in France (Table 21).

Military expenditure is a greater burthen than in any other country except Russia and Italy, for it absorbs $3\frac{1}{4}$ per cent (Table 24) of the national earnings, having risen since 1870 from 80 pence to 90 pence per inhabitant.

National debt has risen (Table 19) from 285 to 530 millions sterling, and stands for 39 per cent of the market value of the kingdom, against 10 per cent in France and $8\frac{1}{2}$ in Great Britain. Another composition with the bondholders seems inevitable before the finances can be balanced. The debt has risen in ten years from £17 to £31 per inhabitant, the highest ratio in Europe.

Population declined from 16,551,000 in 1870 to 16,346,000 in 1877,¹ partly owing to civil wars, partly to emigration. The returns for 1868-1870 showed an average of 35 births and 32 deaths per 1000 inhabitants, equal to 3 per cent increase in ten years. Emigration averages 2 per cent on the population in each decade.

Food-supply shows a surplus in every item, viz.—

	Quantity.		Ratio per inhabitant.	
	Production.	Consumption.	Production.	Consumption
Grain, million bush.	305	300	17·98 bush.	17·68
Meat, tons	196,000	188,000	26·00 lbs.	25·04
Wine, million gals.	260	210	15·40 gals.	12·50

The Spaniards are better fed than the Italians or Portuguese (see Table 26).

¹ The above figures do not include the Canary Islands, which are improperly counted in the census of Spain.

BALANCE-SHEET OF BELGIUM.

THIS kingdom is one of the most progressive in Europe, showing the largest ratio of industry per inhabitant among Continental nations except Holland. The industries have risen as follows:—

	Millions sterling.		Shillings per inhabitant.	
	1870.	1878.	1870.	1878.
Commerce .	64	103	254	375
Manufactures .	73	85	289	309
Agriculture .	34	35	134	127
Carrying trade .	6	7	24	25
Mining .	6	8	24	29
Banking, etc. .	4	4	16	15
	<u>187</u>	<u>242</u>	<u>741</u>	<u>880</u>

The aggregate has increased 30 per cent, the ratio per inhabitant 19 per cent, being a greater rise than in France or Great Britain.

The balance of trade shows an improvement, being now only 27 per cent against the country, viz.—

	Millions sterling.		Shillings per inhabitant.	
	1870.	1879.	1870.	1879.
Imports . .	37	61	147	222
Exports . .	27	48	107	174
Total . .	<u>64</u>	<u>109</u>	<u>254</u>	<u>396</u>

This is, of course, irrespective of the transit trade, which averages 75 millions sterling per annum. Port entries have risen 140 per cent (Table 12) since 1870, and steamers now form 75 per cent as compared with 48 per cent ten years ago. Merchant shipping is insignificant, but has advanced very notably in recent years, Belgium having now

transatlantic steamers between Antwerp and Brazil. The growth of shipping has been as follows:—

	1869.	1879.	Increase.
Nominal tonnage .	33,000	61,000	84 per cent
Carrying power .	67,000	262,000	293 „

Carrying trade has risen 30 per cent in ten years, viz.—

	1870.	1879.
Railways . . .	£4,460,000	£5,350,000
Shipping . . .	233,000	920,000
Canals . . .	1,000,000	1,026,000
	<u>£5,693,000</u>	<u>£7,296,000</u>

New railways since 1870 have cost 16 millions sterling, for 710 miles, the existing lines summing up 2510 miles, and representing a capital of 210 shillings per inhabitant (Table 14) against 160 in 1870. The traffic compares with British lines thus:—

	Belgian.	British.
Receipts per mile . . .	£2,251	£3,356
Working expenses per mile .	1,350	1,676
Net earnings . . .	901	1,680
Profit on capital . . .	3·87	4·15
Construction per mile . . .	£23,280	£40,510

Every passenger or ton carried paid 16 pence, this being the only country that shows a cheaper ratio than Great Britain.

Telegraph traffic shows $3\frac{1}{4}$ million messages, or 60 per 100 inhabitants, being double the European average, but inferior to that of Great Britain.

Manufactures of hardware have progressed more than textiles. Thus iron has risen 62 per cent, and steel multiplied fourfold, while the consumption of raw stuffs for textiles has only advanced from 276 to 301 million lbs., or little more than 10 per cent. Although steel shows such remarkable increase, it amounts but to 3 per cent of

the world's supply, as compared with 36 per cent in Great Britain.

Mining is much attended to, the output of coal being now 3 tons per inhabitant, a ratio not approached by any other nation except Great Britain, ours being nearly 4 tons (Table 6).

Money is very abundant as compared with population, being 150 per cent over the European average (Table 16), but not too much in comparison with commerce, viz.—

	Millions sterling.	Per inhabitant.	Ratio to commerce.
Gold . . .	22	£3 18 10	21 per cent
Silver . . .	13	2 6 8	13 „
Paper . . .	13	2 6 8	13 „
Total . . .	48	£8 12 2	47 „

Coin minted since 1870 sums up 26 millions sterling (Table 17), of which two-thirds gold. It was relatively an enormous amount, £5 per inhabitant, being double the ratio of even Germany or the United States.

National earnings have risen 17 per cent in the gross, and the net income per inhabitant $3\frac{1}{2}$ per cent, viz.—

	Millions sterling.		Per inhabitant.	
	1870.	1880.	1870.	1880.
Income . . .	101	118	£20 0 2	£21 2 10
Taxes and rates . . .	11	15	2 3 8	2 13 9
Net income . . .	90	103	£17 16 6	£18 9 1

The incidence of taxation has risen from 11 to $12\frac{3}{4}$ per cent of the national earnings (Table 21), and is now a little heavier than in Great Britain. Military expenditure is comparatively small, but has increased 35 per cent (Table 24), giving a ratio at present of 86 pence per inhabitant, against 70 pence in 1869.

National debt has more than doubled, partly owing to

the purchase and construction of railways by the State (900 miles since 1870) to the value of 21 millions sterling. But although it has risen from 28 to 62 millions, the amount is still very small, say $6\frac{1}{2}$ per cent of the market value of the kingdom, as compared with 10 per cent in France and $8\frac{1}{2}$ in Great Britain.

Population increases more rapidly than in Germany or Great Britain, although the natural increase is less, for Belgium has no emigration, on the contrary, gaining 2900 persons yearly by net immigration. It is the only country of Europe in which this occurs. There is an upward tendency in the natural increase, for if we compare 1878 with 1870 we find as follows:—

	Number.		Per 1000 inhabitants.	
	1870.	1878.	1870.	1878.
Births .	164,572	172,730	32·58	31·98
Deaths .	118,359	117,721	23·43	21·80
Increase .	46,213	55,009	9·15	10·18

The increase of the last ten years has been $11\frac{1}{2}$ per cent, including $\frac{1}{2}$ per cent from immigration.

Food-supply depends in a great measure on importation, the country producing only 80 per cent of the grain and 65 per cent of the meat required for consumption, viz.—

	Consumption.		Per inhabitant.		Total.
	Belgian.	Imported.	Belgian.	Imported.	
Grain, million bushels	95	25	17·25 bush.	5·59	22·84
Meat, thousand tons	92	48	37·60 lbs.	19·50	57·10
Beer, million gallons	170	—	30·70 gals.	—	30·70
Spirits ,,	15	—	2·80 ,,	—	2·80

The nation is well-fed, the consumption of meat being over the Continental average, and that of grain 5 bushels in excess. Beer is only $1\frac{1}{2}$ gallon below the English ratio, and far beyond that of any other nation (Table 26).

BALANCE-SHEET OF HOLLAND.

THIS kingdom has advanced almost *pari passu* with Belgium in the last ten years, and the average of industries per inhabitant is the highest on the European Continent, coming close up to Great Britain—

	Millions sterling.		Shillings per inhabitant.	
	1870.	1878.	1870.	1878.
Commerce . .	71	110	398	550
Manufactures .	37	42	206	210
Agriculture .	41	46	228	230
Banking . .	13	14	72	70
Carrying trade .	4	5	22	25
Total . .	166	217	926	1085

The aggregate of industries has risen 30, the ratio per inhabitant 17, per cent, the greatest increase being in commerce. The balance of trade grows more unfavourable as the country advances in business and prosperity. Imports are now 42 per cent over exports, whereas the excess was only 22 per cent ten years ago—

	Millions sterling.		Shillings per inhabitant.	
	1870.	1879.	1870.	1879.
Imports .	39	68	219	340
Exports .	32	48	179	238
Total .	71	116	398	578

Merchant-shipping has seemed to decline, but in reality increased in carrying power, from the substitution of steamers for sailing vessels. Thus we find the change since 1870 has been—

	1870.	1879.
Nominal tonnage . . .	390,000	340,000
Carrying power . . .	460,000	568,000

Port entries have doubled (Table 12), and steamers form 79 per cent, against 47 per cent in 1870. The Dutch flag covers less than one-third of the entries, foreign shipping standing for 70 per cent.

Manufactures have advanced on the whole. Iron has risen 73 per cent, sugar declined one-third; gin and rum have fallen, but textile raw stuffs (Table 5) have gone up from 67 to 75 million lbs.

Carrying-trade has advanced 40 per cent, viz.—

	1870.	1879.
Railways . . .	£990,000	£2,100,000
Canals . . .	1,100,000	1,100,000
Shipping . . .	1,600,000	1,900,000
Total . . .	£3,690,000	£5,100,000

New railways since 1870 sum up 515 miles, which cost nearly 12 millions sterling (Table 14), the capital of existing lines being 130 shillings per inhabitant against 80 in 1870. Traffic compares with British lines as follows :—

	Dutch.	British.
Receipts per mile . .	£1,505	£3,356
Working expenses . .	859	1,676
Net earnings . . .	646	1,680
Profit on capital . .	3.45	4.15
Construction per mile .	£18,720	£40,510

Every passenger or ton carried paid 27 pence against 17 pence in Great Britain.

Telegraphs show an increase of more than 50 per cent in the number of messages, which are now 75 per 100 inhabitants, or double the European average, and almost on a par with Great Britain.

Money seems very abundant for the number of inhabitants, being double the European ratio (Table 16), but no country except Great Britain has so little in comparison with commerce, viz.—

	Millions sterling.	Per inhabitant.	Ratio to Commerce.
Gold . . .	4	£1 0 6	4 per cent
Silver . . .	12	3 1 6	11 „
Paper . . .	15	3 16 10	14 „
Total . . .	31	£7 18 10	29 „

Holland mints about £1,500,000 in gold yearly, but no silver. The current of bullion since 1870 averaged a surplus importation of £1,060,000, according to official returns, but these can hardly be relied on as conclusive.

Banking is a source of great wealth to the Dutch, the interest accruing on loans to foreign nations amounting to 13 millions sterling per annum, or £3 per inhabitant, whereas all the foreign investments of Great Britain produce an income of hardly £2 per head of our population.

The national earnings of Holland have risen 17 per cent, and the net income per inhabitant almost 3 per cent. The net income is double the European average (Table 20), but inferior to that of Great Britain or of the United States :—

	Millions sterling.		Per inhabitant.			
	1870.	1880.	1870.	1880.		
Income . . .	89	104	£25 8 5	£26	1	2
Taxes and rates	12	14	3 9 7	3 10	7	
Net income	77	90	£21 18 10	£22	10	7

Incidence of taxation is $13\frac{1}{2}$ per cent of income, which is 2 per cent higher than in Great Britain, but 2 per cent under the European average. Military expenditure takes a larger share of the budget (Table 24) than in any other country except Russia, and has increased as follows :—

	1869.	1880.	Increase.
Army and Navy .	£2,500,000	£3,200,000	28 per cent
Cost per inhabitant	£0 13 4	£0 16 0	20 „
Ratio of earnings .	2·81	3·08	10 „

The burthen is almost on a par with France, but is amply compensated by the advantages of the colonial trade.

National debt has risen 4 millions since 1870, and is now £20 per inhabitant. It is still a mere trifle compared with the amount due to Dutch capitalists by foreign nations.

Population has increased $10\frac{1}{2}$ per cent, the same as in Great Britain, and on comparing the returns for 1879 with those of 1870 we find the increase has an ascending tendency, the birth-rate rising and the death-rate falling, viz.—

	Number.		Per 1000 inhabitants.	
	1870.	1879.	1870.	1879.
Births .	129,997	147,059	36·32	36·76
Deaths .	93,066	90,024	25·99	22·50
Increase	36,931	57,035	10·33	14·26

This is apparently the highest rate of increase in Europe, but there must be deducted from it almost 2 per 1000 for emigration.

Food-supply shows a deficit in grain, but a surplus in meat, the former amounting almost to one-fourth :—

	Quantity.		Per inhabitant.	
	Production.	Consumption.	Production.	Consumption.
Grain, million bush.	50	65	12·50 bush.	16·25
Meat, thousand tons	144	87	80·75 lbs.	48·40
Beer, million gals.	35	35	8·75 gals.	8·75
Spirits „ „	16	11	4·10 „	2·80

The consumption of spirits is almost three times the European average. The people are well fed, able to perform a great deal of work, and their death-rate is low.

BALANCE-SHEET OF SWEDEN AND NORWAY.

THESE two kingdoms, which may be considered as one, show little progress except in commerce and shipping during the last ten years.

	Millions sterling.		Shillings per inhabitant.	
	1870.	1878.	1870.	1878.
Commerce .	27	36	89	111
Manufactures .	36	40	120	123
Agriculture .	47	52	157	160
Carrying trade .	6	12	20	37
Fishing, mining, etc.	8	8	27	25
	<u>124</u>	<u>148</u>	<u>413</u>	<u>456</u>

Trade has undergone a remarkable change, for, while imports and exports were almost even in 1870, the former are now 40 per cent in excess—

	Millions sterling.		Shillings per inhabitant.	
	1870.	1878.	1870.	1878.
Imports . .	14	21	46	65
Exports . .	13	15	43	46
Total .	<u>27</u>	<u>36</u>	<u>89</u>	<u>111</u>

Manufactures and mining have been almost stationary (Tables 4 and 6), and agriculture has risen only 10 per cent, just keeping pace with the growth of population.

Shipping has almost doubled in carrying power, the ratio being now 40 tons per 100 inhabitants, which is unequalled by any country but Great Britain. Port entries have risen 50 per cent, the trade being chiefly done by sailing vessels, since steamers form only 30 per cent, or less than half the European average. The merchant shipping of Sweden and Norway shows the following increase since 1870 :—

	1870.	1879.	Increase.
Nominal tonnage .	1,292,000	2,083,000	60 per cent
Carrying power .	1,405,000	2,621,000	85 „

The carrying-trade on land and water has doubled, the earnings amounting to close on £2 per inhabitant, which far exceeds the ratio of any other country on the Continent—

	1870.	1879.	Increase.
Railways .	£1,070,000	£2,200,000	106 per cent
Shipping .	4,900,000	9,200,000	86 „
Total .	£5,970,000	£11,400,000	90 „

New railways since 1870 have cost nearly 19 millions sterling, viz.—

	Miles.	Cost.
Sweden .	2457	£17,200,000
Norway .	541	3,500,000
Total .	2998	£20,700,000

These are the cheapest built lines in Europe, averaging less than £7000 per mile. The existing lines sum up 4312 miles, representing a capital of 29 millions; that is 88 shillings per inhabitant, against 28 in 1870. Traffic compares with British lines as follows :—

	Swedish and Norwegian.	British.
Receipts per mile	£565	£3356
Working expenses per mile	375	1676
Net earnings	190	1680
Profit on capital	2·80	4·15
Construction per mile . .	£6850	£40,510

Each ton or passenger carried paid 29 pence, against 17 pence in Great Britain.

Telegraph traffic has doubled, at present (Table 15) averaging 25 messages per 100 inhabitants, which is below the European ratio. The existing lines have a length of 10,430 miles, or three yards per inhabitant, a ratio unrivalled by any other country in Europe.

Money is not so abundant, either for population or commerce, as in most other countries, the currency consisting as follows:—

	Millions sterling.	Per inhabitant.	Ratio to commerce.
Gold	5	£0 15 3	14 per cent
Silver	1	0 3 1	3 "
Paper	4½	0 13 9	13 "
Total	10½	£1 12 1	30 "

Sweden and Norway mint £300,000 per annum, two-thirds gold.

National earnings have risen 18 per cent, and the net income per inhabitant 7 per cent, viz.—

	Millions sterling.		Per inhabitant.	
	1870.	1880.	1870.	1880.
Income	89	105	£14 16 8	£16 3 1
Taxes and rates	6	9	1 1 5	1 9 11
Net income	83	96	£13 15 3	£14 13 2

National debt is only 20 millions sterling, of which sum the State railways stand for three-fifths.

Incidence of taxation has risen from 7 per cent in 1870 to $9\frac{1}{2}$ per cent, but it is still one of the lightest taxed countries in Europe. The increase is partly caused by the military expenditure, viz.—

	1869.	1880.	Increase.
Army and Navy .	£1,010,000	£1,805,000	79 per cent
Cost per inhab. .	40 pence	65 pence	62 „
Ratio of earnings .	1.13	1.72	52 „

The relative weight of military expenditure is, nevertheless, lighter than in any other European country except Belgium.

Population would increase faster than in Great Britain but for emigration, which is equal to one-eighth of the natural increase. The birth-rate is rising, the death-rate falling, as shown by comparison with the figures for 1870 :

	Number.		Per 1000 inhabitants.	
	1870.	1878.	1870.	1878.
Births .	170,210	192,483	28.23	30.20
Deaths .	110,112	110,959	18.35	17.32
Increase	60.098	81,524	9.88	12.88

Food-supply shows a deficit in grain, but a surplus of meat, viz.—

	Quantity.		Per inhabitant.	
	Production.	Consumption.	Production.	Consumption.
Grain, million bush.	78	80	11.75 bush.	12.05
Meat, thousand tons	213	146	72.80 lbs.	51.10
Beer, million gallons	35	35	5.40 gals.	5.40
Spirits, „	27	27	4.20 „	4.20

The enormous consumption of spirits is supposed partly to explain the high rate of insanity.

BALANCE-SHEET OF DENMARK.

THE Danes have made the best of their position since the loss of Schleswig-Holstein, the recuperative forces of the kingdom never having been so fully shown as in the decade just closed :—

	Millions sterling.		Shillings per inhabitant.	
	1870.	1878.	1870.	1878.
Commerce . .	15	19	167	190
Agriculture . .	25	27	277	272
Manufactures, etc. .	16	21	175	208
Total . .	56	67	619	670

The aggregate of industries has risen 20 per cent, and the ratio per inhabitant 8 per cent. The chief increase is in commerce, and the balance of trade is more favourable than it was ten years ago, the excess of imports having fallen from 35 to 25 per cent over the value of exports, viz.—

	Sum.		Per inhabitant.	
	1870.	1878.	1870.	1878.
Imports . .	£8,777,000	£10,500,000	96	105
Exports . .	6,477,000	8,450,000	71	85
Total . .	£15,254,000	£18,950,000	167	190

Port entries have risen 165 per cent (Table 12), and the merchant flag of Denmark has doubled in carrying power, viz.—

	1870.	1879.	Increase.
Nominal tonnage . .	178,000	252,000	42 per cent
Carrying-power . .	212,000	432,000	104 „

The carrying trade has doubled, both on land and water, viz.—

	1870.	1878.	Increase.
Railways . .	£320,000	£680,000	110 per cent
Shipping . .	740,000	1,500,000	104 „
Total . .	<u>£1,060,000</u>	<u>£2,180,000</u>	<u>105 „</u>

New railways, 385 miles in length, have been made since 1870 at a cost of 3 millions sterling, bringing up the total to 855 miles, with a capital equal to 70s. per inhabitant, against 45s. in 1870. Traffic compares with British lines as follows :—

		Danish.	British.
Receipts	per mile .	£769	£3,356
Working expenses	„ .	482	1,676
Net earnings	„ .	287	1,680
Profit on capital	. .	3·60	4·15
Construction per mile	. .	£8000	£40,510

Each passenger or ton carried paid 22 pence, against 17 pence in Great Britain.

Telegraph traffic has doubled, the messages now being 50 to 100 inhabitants, which is a much higher ratio than in France or Germany.

Money is abundant, whether compared with population or commerce :—

	Amount.	Per inhabitant.	Ratio to commerce.
Gold . .	£4,000,000	£2 0 2	21 per cent
Silver . .	1,000,000	0 10 0	5 „
Paper . .	4,000,000	2 0 2	21 „
Total . .	<u>£9,000,000</u>	<u>£4 10 4</u>	<u>47 „</u>

Denmark mints about £150,000 in gold, and £200,000 in silver annually.

National earnings have risen 15 per cent, and net income per inhabitant $4\frac{1}{2}$ per cent :—

	Millions sterling.		Per inhabitant.			
	1870.	1880.	1870.		1880.	
Income . . .	38	44½	£21	2 3	£22	1 6
Taxes and rates . .	4	4½	2	1 1	2	1 4
Net income . . .	34	40	£19	1 2	£20	0 2

The incidence of taxation is not much greater than in Sweden, namely, $9\frac{1}{2}$ per cent, almost the lowest ratio in Europe. It was 10 per cent in 1870. Military expenditure has, meantime, risen from 81 pence to 97 pence per inhabitant, but as it only takes 1·82 of the people's earnings, it is still only half the average weight in Europe (Table, 24).

National debt was 30 per cent higher in 1870 than at present, and averages only £5 per inhabitant; one half is represented by State railways.

Population has increased 10 per cent in spite of emigration, and the tendency is upwards, as the birth-rate is rising :—

	Number.		Per 1000 inhabitants.	
	1870.	1877.	1870.	1877.
Births . .	54,420	60,850	30·49	32·02
Deaths . .	34,091	35,806	19·10	18·84
Increase . .	20,329	25,044	11·39	13·18

Emigration averages $2\frac{1}{2}$ per 1000, bringing down the actual increase to $10\frac{1}{2}$ per cent per decade, or $10\frac{1}{2}$ per 1000 yearly.

Food-supply is so abundant that Denmark feeds her neighbours, having a surplus of 19 per cent grain, and 114 per cent meat, for exportation.

	Quantity.		Per inhabitant.	
	Production.	Consumption.	Production.	Consumption.
Grain, million bush. .	74	62	36·80 bush.	30·83
Meat, tons . . .	112,000	52,000	125·80 lbs.	58·15
Beer, million gals. .	25	25	12·50 gals.	12·50
Spirits „ . . .	8	8	4·20 „	4·29

No other country of Europe approaches Denmark in the production of cattle for the number of inhabitants. The consumption of grain is prodigious, much of it being, of course, used for the cattle.

BALANCE-SHEET OF PORTUGAL.

ALTHOUGH this kingdom ranks so low in industry, the average per inhabitant being even less than in Spain, it has made considerable progress since 1870 :—

	Millions sterling.		Shillings per inhabitant.	
	1870.	1878.	1870.	1878.
Commerce . .	10	13	50	58
Agriculture . .	23	25	115	114
Manufactures, etc. .	11	13	55	58
	<u>44</u>	<u>51</u>	<u>220</u>	<u>230</u>

The aggregate shows a rise of 13 per cent, and the ratio per inhabitant $4\frac{1}{2}$ per cent. The balance of trade against the country has increased, the partial returns for 1879 showing little or no change from those of 1877, which compare with 1870 as follows :—

	Amount.		Shillings per inhabitant.	
	1870.	1877.	1870.	1877.
Imports .	£5,702,000	£7,191,000	28	33
Exports .	4,565,000	5,504,000	22	25
Total .	<u>£10,267,000</u>	<u>£12,695,000</u>	<u>50</u>	<u>58</u>

Thus the excess of imports over exports was only 24 per cent in 1870, and has now risen to 31 per cent.

Considerable advance has been made in railways since 1870, viz.—

	1870.	1880.	Increase.
Miles open . . .	439	780	341
Cost of construction .	£7,000,000	£12,000,000	£5,000,000
Capital per inhabitant	£1 15 0	£2 14 0	£0 19 0

Telegraphs are little used, the messages averaging 15 per 100 inhabitants, or half the European average.

According to official returns there was an unprecedented increase of population in the last decade, viz.—

Census of 1872 . . .	4,011,908
„ 1878 . . .	4,348,551

If this increase of 337,000 souls in six years be genuine, it is equivalent to 14 per 1000 per annum, being the highest rate in Europe, but official returns in many countries are full of errors.

Money is superabundant as compared with other countries (Table 16), the ratio per inhabitant being higher than in Great Britain, and the currency too much for commerce—

	Millions sterling.	Per inhabitant.	Ratio to commerce.
Gold . . .	14	£3 3 0	108 per cent
Silver . . .	3	0 13 6	23 „
Paper . . .	6	1 7 0	46 „
	<hr/> 23	<hr/> £5 3 6	<hr/> 177 „

Notwithstanding the increase of national earnings, the net income per inhabitant is no higher, viz.—

	Millions sterling.		Per inhabitant.	
	1870.	1880.	1870.	1880.
Income . . .	32	35	£8 0 4	£8 6 8
Taxes and rates .	6	8	1 9 10	1 15 10
Net income . .	<hr/> 26	<hr/> 27	<hr/> £6 10 6	<hr/> £6 10 10

Incidence of taxation is overwhelming, say $22\frac{1}{2}$ per cent of income, against 12 per cent in Great Britain. Military expenditure is enormous, being heavier than in France (Table 24), and absorbs $3\frac{1}{4}$ per cent of the national earnings. It might be reduced by giving up such useless possessions as Mozambique and Goa.

National debt has grown alarmingly, and is now 35 per cent of the value of the kingdom—

	Millions sterling.		Per inhabitant.	
	1870.	1880.	1870.	1880.
National debt .	60	94	£15	£22

As compared with national earnings it is four times as heavy as the debt of Great Britain.

Agriculture has made some progress, the exportation of wine having risen 22 per cent, and now reaching 17 million gallons. The food-supply stands thus :—

	Quantity.		Ratio per inhabitant.	
	Production.	Consumption.	Production.	Consumption.
Grain, million bush.	30	35	7·14 bush.	8·33
Meat, tons . . .	54,000	47,000	28·82 lbs.	25·20
Wine, million gals. .	88	71	20·50 gals.	16·50

The consumption of grain and meat is very low, but the peasantry supplement their food with salted codfish imported from Newfoundland. It is believed, however, that the people are not sufficiently fed to be able to till the soil properly.

BALANCE-SHEET OF SWITZERLAND.

THIS industrious little Republic has made fair progress in the last ten years. Watchmaking has indeed declined, owing to the American invention in 1873 of making them by steam-power, but wooden clocks have so much risen in demand that the exportation has doubled. Cotton factories show a falling off, but the consumption of pig-iron has doubled, viz.—

	1870.	1878.	Increase.	Decline.
Cotton, million lbs. .	39	35	—	10 per cent
Pig-iron, tons . .	9,150	17,340	90 per cent	—
Export of cheese, tons	17,020	19,510	15 „	—
Wooden clocks . .	1,378	3,082	122 „	—

There is no real advance in cheese, for the average quantity exported in the years 1877-78 was below that of the five years preceding. The income, meantime, derived from travellers and tourists is increasing every year, and now reaches 6 millions sterling per annum.

Railways have doubled in mileage and traffic since 1870, the actual length being 1650 miles, which have cost $32\frac{1}{2}$ millions, or £12 per inhabitant, a ratio unequalled among Continental nations. The traffic compares with British lines as follows:—

	Swiss.	British.
Receipts per mile . .	£1,460	£3,356
Working expenses . .	840	1,676
Net earnings . .	620	1,680
Profit on capital . .	3·07	4·15
Construction, per mile .	£20,190	£40,510

Each passenger or ton carried paid 17 pence, the same as in Great Britain. Telegraphic business has increased

50 per cent (Table 15), the ratio of messages being 98 per 100 inhabitants, which far exceeds that of any other nation in the world, being three times the European average.

Money is very abundant, especially gold, and there are 34 banks of unlimited issue, yet none has ever failed. The currency stands thus:—

	Millions sterling.	Ratio per inhabitant.
Gold . .	12	£4 5 6
Silver . .	7	2 9 9
Paper . .	3½	1 4 10
	<u>22½</u>	<u>£8 0 1</u>

Increase of population is below the European average, since it has been only 6 per cent in ten years. The natural increase, however, is 7½ per cent, but emigration took away one-fifth. Comparing the returns for 1879 with 1870, we find the birth-rate rising, the death-rate falling, viz.—

	Number.		Per 1000 inhabitants.	
	1870.	1879.	1870.	1879.
Births .	79,208	89,692	29·66	30·78
Deaths .	68,746	63,646	25·75	22·73
Increase .	<u>10,462</u>	<u>26,046</u>	<u>3·91</u>	<u>8·05</u>

Food-supply is so insufficient that the imports of grain and cattle increase yearly. In 1870 were imported 8 million bushels, or 3 per inhabitant, and in the years 1877-78 the average was 12½ million bushels, or 4½ per inhabitant. The net imports of cattle also doubled in the interval.

BALANCE-SHEET OF GREECE.

BUT for the financial condition of this kingdom, the progress made in the last ten years would be highly satisfactory. Trade, population, and agriculture have advanced in a remarkable manner, and shipping is the only branch in which a decline has taken place.

The balance of trade in 1875 (the latest returns published) was not so unfavourable as in 1870, the excess of imports having fallen from 80 to 65 per cent. It is still the most unfavourable balance of any country in the world, and shows as follows:—

	Amount.		Per inhabitant.	
	1870.	1875.	1870.	1875.
Imports .	£3,465,000	£5,196,000	£2 7 0	£3 6 0
Exports .	1,889,000	3,177,000	1 6 0	2 1 0
	<hr/> £5,354,000	<hr/> £8,373,000	<hr/> £3 13 0	<hr/> £5 7 0

Merchant-shipping has declined because (as Consul Stephens says) the customs duties have become so oppressive that smugglers are building numerous vessels in the Adriatic for contraband trade. Greek tonnage is now only 290,000, a fall of 60,000 tons since 1870, whereas port entries have risen to 2 million tons (Table 12), an increase of 42 per cent.

Agriculture has advanced in spite of an enormous export duty of 20 per cent, which would seem to be intended to check industry and promote brigandage. Exports of fruit, oil, and other products almost doubled in five years, viz.—

	1870.	1875.	Increase.
Fruit .	£680,000	£1,496,000	120 per cent
Oil .	165,000	462,000	180 „
Wine .	76,000	103,000	36 „
Sundries .	968,000	1,116,000	15 „
Total	<u>£1,889,000</u>	<u>£3,177,000</u>	<u>68 „</u>

Since 1875 there has been a continual advance. In that year a Spanish wine merchant, named Toole, settled at Cephalonia, from which place he now ships 70,000 gallons yearly to England and Germany. In the same year the first steam mill was built in Zante, and now there are eight in the same group of islands. Moreover, owing to the Phylloxera in France, the merchants of Marseilles have established agents in the Morea, who bought up 7000 tons of currants last year for the distillers of French brandy. Greek wines, which were worth sixpence a gallon in 1870, have risen to elevenpence a gallon, and the better classes, which are exported, easily obtain £15 per pipe. The crops of 1879 were valued as follows:—

	Quantity.	Value.
Grain, bushels .	9,000,000	£1,800,000
Wine, gallons .	20,000,000	950,000
Currants, tons .	80,000	1,600,000
Oil, barrels . .	170,000	510,000
Total . .		<u>£4,860,000</u>

The production could be doubled by the better arrangement of the Crown lands, which comprehend three million acres well suited for tillage, but mostly used as goat farms.

Mining continues stationary, the chief mineral being lead, of which the Laurium Company regularly extracts 7500 tons per annum, worth £150,000, employing 6500 workmen.

Railways have not yet been constructed, except a line of seven miles connecting Athens with Piræus, which carries $1\frac{1}{2}$ million passengers, and pays 14 per cent on its cost.

Telegraphs extend for a length of 1810 miles; messages average 24 per 100 inhabitants, which is below the European average.

Money is scarce compared with other countries (Table 16), and includes much inconvertible paper, viz.—

	Amount.	Per inhab.	Ratio to commerce.
Gold and silver .	£2,000,000	£1 3 10	23 per cent
Paper . . .	2,500,000	1 9 9	29 „
Total . . .	<u>£4,500,000</u>	<u>£2 13 7</u>	<u>52 „</u>

National debt stood at 18 millions sterling in 1870, including 12 millions funded, but in 1878 the London bondholders (having received no interest for 50 years) commuted the old debt of 9 millions for a sum of £1,200,000 in new scrip. This reduced the total debt of the kingdom (in 1878) to 9 millions. Greece at once recommenced borrowing, and on December 31, 1880, the debt reached nearly 15 millions, viz.—

English loan of 1824 . . .	£1,200,000
Guaranteed do. of 1832 . . .	3,450,000
Floating debt	4,520,000
French loan of 1879	2,400,000
Franco-Egyptian Bank loan .	600,000
Athenian Bank do.	2,500,000
	<u>£14,670,000</u>

New loans since 1878 sum up £5,500,000, equal to three years of revenue, so that the expenditure must have averaged double the income during the last three years. The loan of 1879 was to redeem the currency, but the

money went to other uses. All hope of redeeming the currency seems now abandoned, for in October 1880 the Government obtained $2\frac{1}{2}$ millions sterling from the Athenian bank in exchange for the right of emission until 1905.

If Greek budgets counted for anything, the expenditure might be said to average 21 shillings per inhabitant, but the reality is perhaps nearly £2. Military expenditure is put down at £472,000, and exceeds a million. This will, however, be reduced as soon as the question of Thessaly and Epirus be arranged.

Population statistics showed an ascending scale till 1876, but since that year the increase is in a declining ratio, viz.—

	Number.		Per 1000 inhabitants.	
	1874.	1878.	1874.	1878.
Births .	45,212	44,921	28·43	27·22
Deaths .	29,863	30,588	18·78	18·54
Increase .	15,349	14,333	9·65	8·68

At no period during the decade has the natural increase appeared to exceed 10 per 1000, yet the census of 1879 gives an annual increment of 17 per 1000 from 1870. The difference may arise from incomplete returns in 1870, or because the registration of births is defective.

Food-supply is so inadequate that Greece, although highly fertile for 45 per cent of its area, and capable of feeding double its population, only produces enough grain for seven months' consumption, the rest being imported from the Black Sea. The importation of cattle has doubled since 1870. The principal items of food show thus:—

	Quantity.		Per inhabitant.	
	Production.	Consumption.	Production.	Consumption.
Grain, bushels .	9,000,000	14,000,000	5.55	8.65
Meat, tons .	21,000	23,000	28.75 lbs.	31.50
Wine, gallons .	20,000,000	18,000,000	12.50	11.25

The Greeks, on the whole, are well fed (Table 26), especially if compared with Italians or Portuguese.

BALANCE-SHEET OF THE UNITED STATES.

It would be impossible to find in history a parallel to the progress of the United States in the last ten years, the results of which appear as follows:—

	Millions sterling.		Shillings per inhab.	
	1870.	1880.	1870.	1880.
Commerce . .	172	301	89	120
Manufactures .	682	888	354	355
Mining . .	38	72	20	29
Agriculture . .	415	525	216	210
Carrying trade .	115	141	60	55
Banking . .	40	52	21	21
Sundries . .	17	25	9	11
	<u>1479</u>	<u>2004</u>	<u>769</u>	<u>801</u>

The aggregate of industries has risen 35 per cent, the ratio per inhabitant 4 per cent, the population having increased one-third in the interval. The actual increase of American industry was 525 millions, whereas the maximum among European nations, that of Great Britain (see page 42), was only 337 millions. The highest relative

increase obtained in Europe, namely in Belgium and Holland, was only 30 per cent, or 5 per cent less than in the United States. Meantime the ratio of industry per inhabitant in the great American Republic is much lower than in Great Britain, Holland, or Belgium (Table 2). This is partly explained by the fact that the population of the United States contains more children per 100 inhabitants¹ than any country of Europe.

Ten years ago the balance of trade was against the country, but now the exports are 31 per cent over imports, viz.—

	Millions sterling.		Shillings per inhab.	
	1870.	1880.	1870.	1880.
Imports .	89	134	46	53
Exports .	83	167	43	67
Total .	172	301	89	120

The ratio of commerce for population is still very low, being 10 shillings below the European average, and not quite one-third of that of Great Britain. Protection tariffs check the natural impulse of trade.

Manufactures have risen 30 per cent, and would have risen much more but for the prohibitory duties on Australian wool and English iron. Woollen factories that could have consumed 500 million lbs. have been too often idle, because prevented from using foreign wool, and railway companies have had to pay extra for native iron, thus increasing the cost of construction and indirectly the charge for freight. Cotton is the only textile industry that shows a healthy development, the consumption since 1870 having risen as follows :—

¹ The difference as compared with Europe is as 29 to 24, say one-fifth more.

	Million lbs.		Pounds per inhabitant.	
	1870.	1880.	1870.	1880.
Cotton .	530	911	13·77	17·92
Wool .	204	258	5·30	5·07
Flax, etc. .	54	23	1·40	0·45
Total .	788	1192	20·47	23·44

Thus the consumption of raw material rose 404 million lbs., against 468 million in Great Britain, although the United States grew 95 per cent of theirs, and we had to import 93 per cent of all consumed in our factories.

Iron and steel have made wonderful progress, through the protective tariff, at the expense of the people. Iron rose from 1,580,000 to 3,220,000, and steel from 40,000 to 800,000 tons, but these quantities still fall far short of the production in Great Britain. Nevertheless it is to be observed that whereas ten years ago the United States was much below France or Germany (Table 6), as regards steel it now produces more than both these countries collectively. The Americans now make one-fifth of the iron, and one-fourth of the steel, of the world.

Mining has, relatively, made greater progress than any other industry, namely 90 per cent, viz.—

	Millions sterling.	
	1870.	1880.
Gold and silver . . .	13	14
Coal	11	18
Petroleum	5	26
Iron	6	10
Copper, lead, etc. . .	3	4
	<u>38</u>	<u>72</u>

In 1870 gold was considerably ahead of silver, but at present the production of these metals is equal. The United States raise one-half the gold, and one-half the

silver, of the world's supply. The increase in the other minerals is prodigious :—

	1870.	1880.	Increase.
Iron ore, tons .	4,500,000	9,500,000	110 per cent
Copper „ .	12,700	20,300	60 „
Coal „ .	33,000,000	55,000,000	66 „
Petroleum, gallons	42,000,000	860,000,000	20-fold

Taking *in globo* all the mining industries of the world, the United States represent 36, Great Britain 33, and other nations 31, per cent of the total.

Agriculture has not kept pace with population as regards value, the ratio per inhabitant (page 80) being 6 shillings less than in 1870, but the quantity of products is larger per head than ten years ago, viz.—

	Quantity.		Ratio per inhabitant.	
	1870.	1880.	1870. .	1880.
Grain, million bush. .	1,560	2,390	41 bush.	47 bush.
Hay, tons . . .	22,240,000	24,150,000	11 cwt.	10 cwt.
Cotton, million lbs. .	1,540	2,773	40 lbs.	55 lbs.

At the same time they paid such attention to pastoral interests that farming stock increased 33 per cent all round, viz.—

	Number.		Head per inhabitant.	
	1870.	1880.	1870.	1880.
Horses .	8,690,000	12,550,000	0·22	0·25
Cows .	28,075,000	33,600,000	0·73	0·67
Sheep .	28,478,000	38,000,000	0·74	0·77
Hogs .	25,185,000	35,000,000	0·65	0·70
Total .	90,428,000	119,150,000	2·34	2·39

Carrying-trade has advanced very notably both on land and water, as shown thus :—

	1870.	1880.	Increase.
Railways . . .	£84,167,000	£110,240,000	31 per cent
Ocean shipping . .	8,600,000	8,100,000	— „
Canals, lakes, rivers .	21,800,000	23,000,000	5 „
	<u>£114,567,000</u>	<u>£141,340,000</u>	<u>23 „</u>

The slight decline in ocean shipping is compensated by an increase of vessels on the lakes and rivers, as shown thus :—

	Nominal Tonnage.		Carrying power.	
	1870.	1880.	1870.	1880.
High seas . .	1,566,000	1,629,000	2,454,000	2,315,000
Inland waters .	2,598,000	2,584,000	6,256,000	6,580,000
	<u>4,164,000</u>	<u>4,213,000</u>	<u>8,710,000</u>	<u>8,895,000</u>

There has been an apparent increase, and a real decline, in the shipping on the high seas ; the reverse has occurred in that of lakes and rivers. On the whole there is an effective increase equal to $2\frac{1}{2}$ per cent. The shipping on sea is nine-tenths sailing vessels, that on inland waters mostly steamers. Adding both together, we find that of every 100 tons borne on American bottom 66 are carried by steamers, 34 by sailing vessels.

Port entries have exactly doubled (Table 12), and the ratio of steamers is only 36 per cent, or half the European average, which seems to indicate that the sailing vessels of the world now trade mostly to the United States. The total goods traffic compares with that of Great Britain as follows, in millions of tons :—

	United States.	Great Britain.
Entries by sea . .	16	26
Coast traffic . .	34	37
Inland waters . .	80	20
Railways . .	210	215
Total	<u>340</u>	<u>298</u>

This is nearly 7 tons per inhabitant in the United States, against 6 tons in Great Britain.

Railways have doubled in ten years, the new lines being 41,883 miles in length, and representing a cost of 578 millions sterling. This is an average of 12 miles a day, at £13,800 per mile. The new lines exceed in length all the lines built in Europe (Table 14) since 1870. There has been a relative decline in traffic, but an increase of profits, since 1871, when there were 60,522 miles open, representing a cost of 555 millions sterling.

	Amount.		Per mile.	
	1871.	1880.	1871.	1880.
Gross receipts . . .	£84,167,000	£110,400,000	£1391	£1276
Working expenses . . .	68,750,000	64,640,000	1136	747
Net profits . . .	15,417,000	45,760,000	255	529
Cost of construction . .	555,208,000	990,230,000	9173	11,448
Profit on capital . . .	2·78	4·62	2·78	4·62

Many of the lines were made with foreign capital, but, comparing the actual cost with population, we find the ratio was almost £20 per inhabitant in 1880, against £11 in 1870. No country in Europe, except Great Britain, shows so high a ratio of railway capital per head. The traffic on the whole is light, some lines not earning enough to pay working expenses. In the crisis of 1876-77 no fewer than 128 bankrupt railways were sold by auction, with an aggregate length of 13,120 miles, representing a cost of 230 millions sterling. The new lines, nevertheless, have helped to promote agricultural interests, but the relative utility of American lines is inferior to British, since every £1000 of railway capital in the United States carried last year only 408 passengers or tons of merchandise, against 1206 in Great Britain. The traffic compares thus :—

	American.	British.
Passengers per mile . . .	£2,289	£35,537
Goods, tons . . .	2,426	12,147
Earnings . . .	£1,276	£3,356
Working expenses . . .	747	1,676
Net earnings . . .	529	1,680
Cost of construction . . .	11,448	40,509
Capital per inhabitant . .	£19 : 10 : 0	£20 : 16 : 0
Profit on capital . . .	4.62	4.15

Every ton or passenger carried paid 66 pence, against 17 pence in Great Britain.

Telegraphs have almost doubled in mileage, and trebled in the number of messages, the ratio whereof is 55 per 100 inhabitants, against 77 in Great Britain, and 30 for Europe in general (Table 15).

Banking progressed notably from 1870 to 1876, but declined from the latter year. The returns of National Banks for 1879 compare with those of 1870 as follows :—

	1870.	1879.
Number of Banks . . .	1601	2045
Capital . . .	£83,400,000	£91,500,000
Deposits . . .	99,600,000	119,000,000

At present there are altogether 6360 banks, whose capital and deposits sum up 511 millions sterling. This sum, distributed according to population, is less than half the English ratio, viz.—

	Millions sterling.		Ratio per inhabitant.	
	United States.	Great Britain.	United States.	Great Britain.
Bank capital . . .	131	195	£2 11 4	£5 11 5
Deposits . . .	380	517	7 9 0	14 15 8
	511	712	£10 0 4	£20 7 1

Bank dividends in the United States, for 1879, averaged 6 per cent, against $10\frac{1}{2}$ per cent in 1870. The banks of Great Britain average 14 per cent on their paid-up capital, but as the shares are usually 100 per cent above

par, the shareholders hardly get 7 per cent for their money. The decline of American banking since 1876 appears as follows :—

	1876.	1879.	Decline.
Number of banks . . .	6611	6360	4 per cent
Capital, million £ . . .	144	131	9 „
Deposits „ . . .	415	380	8 „

The decline is often attributed to heavy taxes on banks, but arises no less from the revival of trade, which is on a much sounder basis since the resumption of specie-payments on December 17, 1878. Comparing the bankruptcy returns of 1870 and 1880, we find as follows :—

	1870.	1880.
Number of failures . . .	3,551	4,738
Ratio to population . . .	1 in 10,845	1 in 10,910
Amount . . .	£17,550,000	£12,057,000
Ratio to commerce . . .	10·20 per cent	4·02 per cent

It may therefore be said that bankruptcies have declined one-half.

Money is more abundant, compared with population, than in Europe (Table 16), notwithstanding the diminution of 9 millions sterling in paper-currency since 1870. There is still twice as much paper-money, but only half as much coin, per inhabitant, as in Great Britain. On the whole we have 13s. a head more than in the United States. But in comparison with commerce the Americans use three times as much money as we do, their ratio being 80 per cent in relation with commerce, against 28 per cent in Great Britain, and 56 per cent for Europe in general. The United States currency in October 1880 stood as follows :—

	Millions sterling.	Per inhabitant.	Ratio to commerce.
Gold . . .	77	£1 10 3	26 per cent
Silver . . .	31	0 12 7	10 „
Paper . . .	132	2 11 8	43 „
Total . . .	240	£4 14 6	79 „

The above, of course, does not include Treasury bullion, which amounted to 15 millions sterling. The United States mint has coined, since 1870, the following sums:—

Gold . . .	£80,400,000
Silver . . .	31,420,000
Total . . .	<u>£111,820,000</u>

This was almost one-fourth of the gold, and one-sixth of the silver, coined by the world in the said ten years (Table 17). At no previous period was the American mint so prolific, the greatest quantity in any previous decade having been 75 millions sterling, namely, from 1851 to 1860. The total coinage since 1800 has been 228 millions gold, and 59 of silver, say 287 millions sterling, or an average of 36 millions per decade.

National earnings have risen $31\frac{1}{2}$ per cent, which is almost the same as the increase of population, but, as taxes have fallen, the net income per inhabitant is $5\frac{1}{2}$ per cent higher than it was ten years ago, viz.—

	Millions sterling.		Ratio per inhabitant.	
	1870.	1880.	1870.	1880.
Income . . .	1062	1406	£27 11 8	£27 18 4
Taxes and rates .	142	129	3 13 10	2 12 7
Net income . .	<u>920</u>	<u>1277</u>	<u>£23 17 10</u>	<u>£25 5 9</u>

The net income per inhabitant is double the European average (Table 20), and 15 per cent less than in Great Britain. The incidence of taxation has been reduced from $13\frac{1}{2}$ per cent of income in 1870 to $9\frac{1}{4}$ per cent in 1880, being now only half of what it is in France (Table 21), and one-fourth less than in Great Britain. Two causes have tended to lighten the weight of taxation: 1. Reduction of military expenditure; 2. Conversion and reduction of

national debt. Hence the national revenue has been reduced from 86 to 69 millions sterling.

Military expenditure in 1870 absorbed 1.89 of the nation's earnings, and in 1880 only 0.77, a relative decrease of 60 per cent. The burthen of this item is now one-fourth of what it is for Europe in general (Table 24).

National debt has been reduced from 496 to 390 millions sterling, or 22 per cent in ten years. Moreover, by converting the stock into 4 per cents, the treasury has effected a great saving, reducing the interest on the bulk of the debt from £17,000,000 to £12,800,000 per annum. The reduction of debt since 1870 has averaged £32,000 a day, or a penny a week from each inhabitant. The relative burthen of debt and interest is now hardly half what it was in 1870, viz.—

	Amount.		Ratio per inhabitant.	
	1870.	1880.	1870.	1880.
Debt .	£496,200,000	£390,100,000	£12 18 0	£7 13 0
Interest .	26,880,000	16,430,000	0 13 11	0 6 5

In fact, the ratio of debt per inhabitant has fallen 42 per cent, that of interest 54 per cent in ten years.

Population has increased 11,920,000 souls, say 31 per cent since 1870, being the largest number gained in any decade of the Union. Nevertheless, the ratio of increment is less than for any decade previous to the war, the average from 1800 to 1860 ranging from $33\frac{1}{2}$ to 36 per cent. Immigration stands for less than one-fifth of the increase, the decade ending December 31, 1879, showing arrivals and departures, thus:—

Arrivals . .	3,384,000
Departures . .	1,192,000
Net immigration	<u>2,192,000</u>

This exceeded by 578,000 the largest decade previously recorded, viz. that ending December 31, 1859. If we deduct the net immigration from the total increase, we find the surplus of births over deaths in ten years was 9,728,000. Now, as the medium population for the decade was 45 million souls, it appears likely the births and deaths (there being no returns) were as follows:—

	Number.	Ratio per 1000 inhab. per an.
Births . . .	18,728,000	41·62
Deaths . . .	9,000,000	20·00
Increase	9,728,000	21·62

This is three times the European rate of increase (Table 13), and double that of England or Germany; it is even superior to that of Australia. Everything seems to promise that twenty years hence, at the close of the 19th century, the United States will have between 90 and 100 million inhabitants.

Food-supply is so abundant that the grain crop is $18\frac{1}{2}$ per cent over consumption, and the meat 36 per cent in excess. The United States produce 30 per cent of the grain, and 30 per cent of the meat, of the world (Table 25). The increase since 1870 has been as follows:—

	Quantity.		Ratio per inhab.		Increase.
	1870.	1880.	1870.	1880.	
Grain mil. bush	1560	2390	40·54 bush.	47·11	6·57 bush.
Meat, tons .	2,971,000	4,286,000	172·87 lbs.	170·06	...

Thus it appears that in spite of the population increasing $1\frac{1}{4}$ million souls yearly, the supply of grain is growing faster, and of meat almost as fast, so that the exportation to Europe is likely to go on rising for many years to come. If we examine the separate items of food-supply we find the increase since 1870 has been as follows:—

GRAIN CROPS.

	Million bushels.		Bushels per inhab.	
	1870.	1880.	1870.	1880.
Wheat .	231	496	6·02	9·77
Maize .	992	1480	25·77	29·20
Oats, etc. .	337	414	8·75	8·14
Total .	1560	2390	40·54	47·11

MEAT SUPPLY.

	Animals for slaughter.		Tons of meat.		Pounds per inhab.	
	1870.	1880.	1870.	1880.	1870.	1880.
Cows	4,697,200	5,600,000	1,754,600	2,100,000	102·10	93·10
Sheep	9,500,000	12,666,000	318,190	424,100	18·50	19·10
Hogs	10,074,000	14,480,000	898,560	1,291,560	52·27	57·86
Total	24,271,200	32,746,000	2,971,350	3,815,660	172·87	170·06

The above is the available supply, but we cannot know the actual slaughter, unless of hogs; cattle average 850, hogs 217, pounds in weight. The home consumption of meat is said to be 120 lbs. per inhabitant, equal to 2,740,000 tons, leaving a surplus of 1,076,000 tons, of which, however, only 550,000 tons are exported; 75 per cent to Great Britain, 16 to Germany and Belgium, 9 to France and other countries.

The production and consumption of food show as follows:—

	Quantity.		Ratio per inhabitant.	
	Production.	Consumption.	Production.	Consumption.
Grain, mil. bush.	2390	2020	47·11 bush.	39·60
Meat, tons .	3,816,000	2,740,000	170·06 lbs.	120·00
Wine, mil. gals.	20	30	0·40 gals.	0·60
Beer . .	360	360	7·35 „	7·35
Spirits . .	76	76	1·50 „	1·50

The Americans are apparently the best fed of all nations (Table 25).

BALANCE-SHEET OF CANADA.

As the past decade has been the first of the Dominion of Canada in its confederate form, it is gratifying to find the colony has made fair progress in every particular—

Population rose	.	14 per cent
Commerce	.	3 „
Length of railways	.	54 „
Colonial shipping	.	45 „
Agricultural exports	.	44 „

The growth of population is 2 per cent over the rate in the previous decade, but is still very slow, the natural increase being much less than in Great Britain. The account stands thus:—

		Increase.
Population in 1870	. . . 3,763,000	...
Surplus of births over deaths	307,000	8·17 per cent
Net immigration	. . . 228,000	6·06 „
Population in 1880	. . . <u>4,298,000</u>	<u>14·23</u> „

The number of emigrants who landed in Canada exceeded half-a-million, but the actual settlers were only 228,000, the rest proceeding to the United States. The average immigration was, therefore, under 23,000 per annum, against 58,000 in Australia.

The table of industries shows increase as follows:—

	Millions sterling.		Shillings per inhab.	
	1870.	1879.	1870.	1879.
Commerce	33	35	178	161
Manufactures	35	46	189	215
Agriculture	51	60	268	280
Carrying trade	5	9	25	42
Banking	2	4	11	19
Total	<u>126</u>	<u>154</u>	<u>671</u>	<u>717</u>

Commerce has not increased in the same ratio as population, and the balance of trade is less favourable than it was ten years ago, viz.—

	Amount.		Shillings per inhab.	
	1870.	1879.	1870.	1879.
Imports . .	£16,973,000	£18,507,000	90	86
Exports . .	16,626,000	16,067,000	88	75
Total . .	£33,599,000	£34,574,000	178	161

The balance against the colony has risen from 2 to 11 shillings per inhabitant, yet the general condition seems improved, if we are to judge by savings bank and insurance returns.

Agricultural interests show the most undoubted progress, according to the rise in exports of this description from 1872 to 1879.

	Value exported.		Ratio per inhab.	
	1872.	1879.	1872.	1879.
Cattle, meat, wool, etc.	£2,598,000	£2,954,000	£0 13 5	£0 13 10
Grain . . .	2,390,000	4,252,000	0 12 4	1 0 8
Total . .	£4,988,000	£7,206,000	£1 5 9	£1 14 6

There is a rise of 44 per cent in the value, and 36 per cent in the ratio per inhabitant. This increase compensates for a decline of two millions sterling in the export of timber. It is worth observing that the exports of Canada are 8s. per inhabitant more than in the United States (page 109). One of the most valuable of Canadian exports is fish, which amounted to £2,117,000 last year, being a rise of 10 per cent.

Railways have been more beneficial to the farmers than to the shareholders, averaging less than $1\frac{1}{2}$ per cent profit on capital per annum. Meantime the goods traffic of the Grand Trunk line has doubled in five years, and exceeds

5 million tons. New lines built since 1870 amount to 2135 miles (Table 14), the total cost of existing lines being 73 millions sterling, or £11,870 per mile. By the contract recently signed for the Northern Pacific Railway the new company engage to have the line completed by 1890 from Lake Superior to Port Moody, British Columbia, 2010 miles in length, the Government ceding twenty-five million acres land and all the works and surveys already done, besides giving a guarantee for a loan of five millions sterling, or one-fourth of the estimated cost.

Shipping has risen 45 per cent, the colony now possessing a fine fleet of sailing vessels and some steamers, viz.—

	1870.	1880.	Increase.
Nominal tonnage . .	836,000	1,380,000	63 per cent
Carrying power . .	1,120,000	1,610,000	45 „

Banking has doubled since 1870, and is now very active. Discounts average 100 millions sterling per annum, or £22 per inhabitant, against £40 in Great Britain, and £90 in Australia. Deposits, however, have risen in ten years only 25s. per inhabitant, against £12 in Australia.

Money is scarce notwithstanding the paper currency having doubled since 1870. The ratio of all money to population is less than half that of Great Britain, and as compared with commerce it is barely half the European average (Table 16), the currency consisting as follows:—

	Amonnt.	Per inhabitant.	Ratio to commerce.
Gold and silver . .	£2,000,000	£0 9 6	6 per cent
Paper	8,000,000	1 18 0	24 „
	<u>£10,000,000</u>	<u>£2 7 6</u>	<u>30 „</u>

The earnings of the colony have risen more than 25 per cent (Table 20), and the net income per inhabitant is a little higher than in the United States, while it is more

than double the European average, and only £4 less than in Great Britain. The increase is shown thus:—

	Millions sterling:		Per inhabitant.			
	1870.	1880.	1870.	1880.		
Income . . .	94	118	£25 1 4	£27	13	10
Taxes and rates .	6	8	1 13 3	2	2	2
Net income .	88	110	£23 8 1	£25	11	8

Incidence of taxation is $6\frac{3}{4}$ per cent of earnings against $6\frac{1}{2}$ in 1870 : it is $2\frac{1}{2}$ per cent less than in the United States, and is the lightest ratio for any country in the world.

Public debt has doubled since 1870, owing chiefly to the expenditure on railways, canals, lighthouses, and harbours. It amounts to thirty-five millions sterling, or a little over £8 per inhabitant, against £33 in Australia.

Food supply is abundant, the exportation averaging ten million bushels grain and 16,500 tons meat per annum. Production and consumption are shown thus—

	Quantity.		Ratio per inhabitant.	
	Production.	Consumption.	Production.	Consumption.
Grain, million bushels	170	160	40·30 bush.	37·92
Meat, tons . . .	287,000	270,000	153 lbs.	120

No country, except the United States, raises so much grain per inhabitant, and the production of meat is three times the European average (Table 26).

BALANCE-SHEET OF AUSTRALIA.

THE relative progress of this colony (or group of colonies) far exceeds that of the United States, and may be summed up thus :—

	1870.	1880.	Increase.
Population . . .	1,829,000	2,863,000	56 per cent
Commerce . . .	£57,302,000	£88,666,000	55 „
Wool, lbs. . . .	193,000,000	392,000,000	103 „
Acres under grain .	1,811,000	3,401,000	89 „
Railways, miles . .	1,170	4,350	272 „
Telegraphs „ . . .	14,000	26,840	93 „
Revenue	£9,585,000	£15,927,000	66 „
Debt	£36,170,000	£91,142,000	153 „

The increase of population has been almost double the ratio of the United States. Immigration averaged 58,400 souls per annum, while the natural increase was 20 per 1000 on the medium population, against 22 in the United States, and 7 in Europe.

	Number.	Ratio per 1000 inhab. per annum.
Births	794,500	34·54
Deaths	344,500	14·98
Natural increase .	450,000	19·56
Net immigration .	584,000	25·40

The vital statistics vary according to climate, as in Europe, the deaths averaging 11 per 1000 in New Zealand and 18 in Queensland, and the births 41 per 1000 in New Zealand and 31 in Tasmania. The highest natural increase is that of New Zealand, 30 per 1000, or 3 per cent annually on the population, which is the highest ratio in the world. On the other hand Tasmania and Victoria average only 16 per 1000, or about double the European average (Table 13). No country in the world except the United States attracts so large a number of European settlers, the

average of net immigration for the last ten years having been 160 persons daily, or 58,000 per annum, against 45,000 in the River Plate, 28,000 in Canada, and 2000 in South Africa. In fact, the annual gain to Australia by immigration is more than the increase of population in any of five of the smaller kingdoms of Europe. In ten years more Australia will have the same population that the United States had in 1801.

Commerce has increased more in imports than in exports, the former being at present 15 per cent over the latter, viz.—

	Amount.		Ratio per inhabitant.	
	1870.	1879.	1870.	1879.
Imports .	£28,881,000	£47,379,000	£15 15 10	£17 4 4
Exports .	28,421,000	41,277,000	15 10 5	15 0 2
Total .	£57,302,000	£88,656,000	£31 6 3	£32 4 6

The balance of trade against the country has risen from 5 to 44 shillings per inhabitant, and the growth of wealth has in the same period been enormous, as shown by the increase of bank deposits. Hence it would appear that a surplus of imports by no means impoverishes a nation. The average of trade per inhabitant is £12 higher than in Great Britain, 5 times the ratio of Europe (Table 2), and $5\frac{1}{2}$ times that of the United States.

Pastoral industry has been the mainspring of advancement, the flocks and herds having multiplied in ten years as follows :—

	1870.	1880.	Increase.
Horses .	798,000	1,010,000	26 per cent
Cows .	4,713,000	7,879,000	68 „
Sheep .	51,294,000	65,914,000	29 „
Pigs .	695,000	822,000	19 „
Total .	57,500,000	75,625,000	32 „

Each inhabitant produces at present 143 lbs. wool, against 105 lbs. in 1870, although the average number of sheep to population is 4 less, as appears in the following statement :—

	Cows per inhabitant.		Sheep per inhabitant.		Wool, lbs. p. inhab.	
	1870.	1879.	1870.	1879.	1870.	1879.
N. S. Wales .	4·57	3·90	33·98	39·50	98	152
Victoria .	1·03	1·23	15·37	9·45	74	58
S. Australia .	0·78	1·02	25·14	23·44	149	208
W. Australia .	1·88	2·02	25·37	37·00	75	105
Tasmania .	1·04	1·13	13·90	16·10	43	68
Queensland .	9·36	12·73	71·00	27·55	180	114
New Zealand .	1·79	1·26	39·60	28·41	151	134
General average	2·58	2·87	28·03	24·02	105	143

Horned cattle, strange to say, have increased faster than sheep, but the quality of the latter has improved so much that the average fleece is 60 per cent heavier, having risen from 3·78 lbs. to 5·94 lbs. Thus, although the value of wool has declined in the world's markets, each inhabitant of Australia, with a ratio of four sheep less than in 1870, exports 119 shillings worth of wool, against 91 shillings in 1870; sheep producing now 5 shillings per fleece, against 40 pence ten years ago. The superiority of Australian sheep is shown in comparison with those of other countries thus :—

	Average fleece, lbs.	Value per lb:	Product per sheep.
Australia .	6	10 pence	60 pence
River Plate .	4	6 „	24 „
South Africa .	4	13 „	52 „

The fleece is by no means uniform, for it averages 3 lbs. in Western Australia; 4 lbs. in Tasmania, Queensland, and New South Wales; 5 lbs. in New Zealand; 6 lbs. in Victoria, and 9 lbs. in South Australia. The highest value

of wool for population is £8 per inhabitant in New South Wales and £7 in South Australia and New Zealand.

Agriculture, judged by the acres under tillage, has advanced 89 per cent, or by the number of bushels of grain produced 75 per cent; but the progress has varied considerably, some of the colonies having remained stationary, and some even retrograded, the latter discovering that their interests lay rather in pastoral pursuits.

	Acres under grain.		Crop, bushels.		Bushels per inhab.	
	1870.	1879.	1870.	1879.	1870.	1879.
N. S. Wales	285,000	489,000	3,700,000	8,800,000	7·70	12·20
Victoria	493,000	888,000	6,600,000	9,900,000	9·40	11·05
S. Australia	637,000	1,326,000	7,500,000	9,500,000	42·80	36·50
W. Australia	34,000	31,000	300,000	300,000	12·50	10·00
Tasmania	106,000	89,000	2,200,000	1,900,000	22·70	15·80
Queensland	23,000	69,000	500,000	1,700,000	4·40	7·70
N. Zealand	234,000	509,000	6,800,000	16,100,000	27·20	35·80
Total	1,812,000	3,401,000	27,600,000	48,200,000	15·10	17·20

In 1870 each inhabitant cultivated almost an acre of grain, and produced 15 bushels; in 1879 the ratio was $1\frac{1}{4}$ acre and 17 bushels; only two of the colonies, namely New Zealand and South Australia, raising more grain than enough for their own immediate consumption. The average yield per acre of the various crops is shown thus:—

	Acres.		Bushels.		Bushels per acre.	
	1870.	1879.	1870.	1879.	1870.	1879.
Wheat	1,202,000	2,578,000	14,000,000	26,042,000	11·70	10·10
Oats	322,000	468,000	7,000,000	11,950,000	21·85	25·40
Maize	124,000	186,000	2,900,000	6,001,000	23·40	32·25
Barley, etc.	164,000	169,000	3,700,000	4,193,000	22·55	24·80
Total	1,812,000	3,401,000	27,600,000	48,186,000	15·20	14·17

The wheat-crop of 1880 rose to $36\frac{1}{2}$ million bushels.

During four years, ending December 1878, the value and extent of Crown lands disposed of were as follows:—

	Acres.	Sum realised.	Annual average, acres.	Price per acre.
New S. Wales	13,670,000	£13,980,800	3,418,000	£1 0 5
New Zealand	2,510,000	4,032,000	627,500	1 12 0
S. Australia	2,360,000	4,780,000	590,000	2 0 6
Queensland	2,060,000	1,250,000	515,000	0 12 2
Victoria	1,513,000	1,970,000	378,000	1 6 0
Tasmania and W. Australia }	337,000	340,000	84,000	1 0 2
	<u>22,450,000</u>	<u>£26,352,000</u>	<u>5,612,500</u>	<u>£1 3 5</u>

Gold-mining has greatly declined in late years: the total production has been as follows:—

	Millions sterling.	Per annum.
1851-59 . . .	102	£11,333,000
1860-69 . . .	118	11,800,000
1870-79 . . .	72	7,200,000
	<u>292</u>	<u>£10,700,000</u>

In 1880 it did not amount to 4 millions sterling. There is, however, a remarkable activity in other branches of mining, viz.—

	1870.	1878.
Copper and tin . . .	£708,000	1,771,000
Coal	260,000	710,000
	<u>£968,000</u>	<u>2,481,000</u>

The increase of railways and telegraphs since 1870 has been relatively far greater than in the United States, as compared with population, the new railways being 3180 miles, and the telegraph lines 12,800 miles in length. Taking the medium population for the decade, we find that every 10,000 inhabitants constructed 14 miles of railway and 56 of telegraphs, against 9 miles of railway and 11 of telegraph in the United States. The railway traffic is even lighter than in the United States, averaging

barely 1000 passengers, and 1000 tons of merchandise per mile. The telegraph traffic is enormous, reaching 4,600,000 messages, or 165 per 100 inhabitants, a ratio unapproached by any other nation, and even double that of Great Britain.

Money is not abundant, in fact no country has so small a currency in relation to commerce, namely 16 per cent, against 28 per cent in Great Britain, and 80 in the United States. The figures stand thus:—

	Amount.	Per inhabitant.	Ratio to commerce.
Gold .	£9,000,000	£3 4 0	10 per cent
Silver .	1,000,000	0 7 2	1 „
Paper .	4,550,000	1 12 5	5 „
	<u>£14,550,000</u>	<u>£5 3 7</u>	<u>16 „</u>

Since the gold discoveries Australia has coined 59 millions sterling in gold, the Sydney mint producing at present about 3 millions per annum. Banking returns for 1878 show a prodigious business compared with population, the discounts reaching 260 millions per annum, or £96 per inhabitant, against £40 in Great Britain, and £22 in Canada. Deposits rose from 32½ millions in 1873 to 51 millions in 1878, being an increase of £3,700,000 per annum, or 32 shillings per inhabitant, against 3 shillings in Canada. The actual amount of deposits, and the annual discount business, compared with population in the several colonies, give the following ratios per head:—

	Amount of deposits per inhabitant.			Annual discounts per inhabitant.	
	1873.	1878.		1873.	1878.
N. S. Wales .	£18 14 6	£23 17 10		£71	£97
Victoria .	15 7 6	18 10 2		80	104
S. Australia .	10 18 2	13 10 4		70	98
Tasmania .	8 3 10	17 0 8		38	60
Queensland .	13 14 3	19 11 0		57	80
New Zealand .	15 14 8	20 7 4		72	118
General average	<u>£15 9 9</u>	<u>19 12 5</u>		<u>73</u>	<u>96</u>

The business altogether shows a rise of 27 per cent in deposits, and 35 per cent in discounts in five years.

Summing up all the industries we find as follows:—

	Millions sterling.		Shillings per inhabitant.	
	1870.	1879.	1870.	1879.
Commerce . . .	57	89	626	644
Manufactures . . .	9	13	98	92
Mining . . .	9	6	99	43
Agriculture . . .	35	52	380	370
Banking, etc. . .	6½	13	67	86
	<u>116½</u>	<u>173</u>	<u>1,270</u>	<u>1,235</u>

The ratio per inhabitant, for all industries combined, is three times that of Europe, 55 per cent over the United States, and 5 per cent over Great Britain, being in fact the highest for any people in the world.

Although the earnings of the colonists have risen 40 per cent, such has been the increase of population that the average per inhabitant is less than in 1870:—

	Millions sterling.		Per inhabitant.	
	1870.	1879.	1870.	1879.
Earnings . . .	63	89	£34 12 0	£31 2 0
Taxes . . .	10	16	5 9 0	5 14 0
	<u>53</u>	<u>73</u>	<u>£29 3 0</u>	<u>£25 8 0</u>

The incidence of taxation has risen from 16 to 19 per cent, being now 7 per cent over the ratio of Great Britain. Nevertheless, it falls lightly, as a great portion is derived from Crown lands, viz.—

		Ratio per inhabitant.
Crown lands . . .	£6,588,000	£2 7 6
Taxes . . .	5,927,000	2 2 6
Railways and Sundries . . .	3,412,500	1 4 6
	<u>£15,927,500</u>	<u>£5 14 6</u>

The average of revenue and public debt for the several colonies varies exceedingly, as the wealth and resources of some enable them to support easily a burthen per head that in others would be oppressive. The increase of revenue since 1870, as also that of public debt, and the ratios per inhabitant, are shown as follows:—

	Revenue.		Ratio per inhabitant.	
	1870.	1879.	1870.	1879.
N. S. Wales .	£2,575,000	£4,475,000	£5 7 3	£6 1 4
Victoria .	3,262,000	4,622,000	4 13 3	5 0 8
S. Australia .	860,000	1,662,000	4 18 2	6 8 0
W. Australia .	98,000	196,000	4 2 0	6 10 6
Tasmania .	270,000	375,000	2 15 10	3 6 2
Queensland .	786,000	1,462,000	6 16 6	6 13 1
New Zealand .	1,733,000	3,135,000	7 1 6	6 16 3
Total .	£9,584,000	£15,927,000	£5 8 7	£5 14 0

	Debt.		Per inhabitant.	
	1870.	1880.	1870.	1880.
N. S. Wales .	£9,681,000	£14,937,000	£20 3 0	£19 4 6
Victoria .	11,925,000	22,050,000	17 0 8	23 4 4
S. Australia .	1,945,000	9,856,000	11 3 0	35 4 0
W. Australia .	...	361,000	...	12 0 8
Tasmania, .	1,269,000	1,787,000	13 2 0	14 18 0
Queensland .	3,509,000	13,193,000	29 2 0	60 0 7
New Zealand .	7,842,000	28,958,000	31 4 4	63 1 0
Total .	£36,171,000	£91,142,000	£19 14 6	£31 19 2

The revenue per inhabitant has risen 5 per cent, the debt 60 per cent, but the latter is comparatively light, since the deposits in bank would pay off 62 per cent of the amount. As the weight of debt and taxation can best be measured by earnings and capital, the following statement conveys a much more accurate idea (the word "taxes" being equivalent to revenue):—

	Earnings per inhabitant.	Capital per inhabitant.	Ratio of taxes to earnings.	Ratio of debt to capital.
N. S. Wales .	£33 4 0	£181	18 p. c.	11 p. c.
Victoria .	27 12 0	151	18½ „	16 „
S. Australia .	33 10 0	183	19 „	20 „
W. Australia .	23 7 0	129	27 „	9½ „
Tasmania .	27 10 0	151	12 „	10 „
Queensland .	36 4 0	199	18½ „	30 „
New Zealand .	38 7 0	211	17 „	30 „
General average	£31 2 0	£171	19 „	19 „

Food-supply is practically inexhaustible, the flocks and herds affording easily a meat crop of one million tons, sufficient for 20 million inhabitants, that is 7 times the actual population. The grain crop reaches 60 million bushels, of which one-third is exported. The meat supply is shown thus, per annum :—

	Animals for slaughter.	Tons of meat.	Pounds per inhab.
Cows .	1,350,000	520,000	420
Sheep .	22,000,000	440,000	350
Hogs .	360,000	30,000	23
	23,710,000	990,000	793

Australia could, therefore, export 700,000 tons of meat, say 2000 tons daily, without reducing the capital number of her sheep and cattle.

BALANCE-SHEET OF INDIA.

THE last ten years have witnessed a great development of industry in many branches, more than compensating for the decline in cotton and silk. There has been, moreover, a remarkable rise in revenue as well as in the value of

agricultural exports, owing to the multiplication of railways and canals. The items of national progress may be summed up thus:—

	1870.	1880.	Increase.
Railways, miles . . .	4,775	8,611	80 per cent.
Telegraphs „ . . .	14,400	18,200	26 „
Revenue . . .	£50,901,000	£67,615,000	34 „
Debt . . .	£108,184,000	£153,000,000	41 „
Imports . . .	£32,850,000	£37,760,000	15 „
Exports . . .	£52,470,000	£60,940,000	16 „
Port entries, tons . .	3,100,000	8,150,000	163 „

The shipments of cotton have fallen from 250,000 to 170,000 tons, and of silk from $2\frac{1}{2}$ to $1\frac{1}{2}$ million lbs., causing a deficit of 12 millions sterling in these two items, but there has been an increase of more than 20 millions in other articles, as shown thus:—

	1870.	1879.	Increase.
Coffee . . .	£870,000	£1,545,000	80 per cent
Cotton : . .	19,100,000	7,900,000	...
Opium . . .	11,690,000	12,995,000	11 per cent
Rice, wheat, etc.	3,050,000	9,490,000	216 „
Seeds . . .	2,310,000	4,680,000	103 „
Jute . . .	2,200,000	4,900,000	122 „
Tea . . .	1,080,000	3,170,000	193 „
Wool . . .	470,000	1,110,000	115 „
Silk . . .	1,560,000	620,000	...
Sundries . . .	10,140,000	14,530,000	44 per cent
Total . . .	£52,470,000	£60,940,000	16 „

In 1880 there were $19\frac{1}{2}$ million acres under wheat, but the crop is almost wholly required for home consumption, the average exports for the last three years not exceeding 9 million bushels per annum, or 3 per cent of the crop. Rice shows a notable increase, the average shipments for 1876-79 being 40 million bushels, against 28 million in the years 1870-71.

Net imports of specie during the last ten years amounted to £68,800,000, say 7 millions sterling per annum, against 20 millions in the previous decade. The Government coins from 3 to 4 millions sterling per annum in silver, and the paper money in circulation is a little over 12 millions.

New railways since 1870 have cost 50 millions sterling, averaging £13,000 per mile, the account standing thus—

	1870.	1880.	Per mile.	
			1870.	1880.
Miles open . . .	4775	8611	...	...
Earnings . . .	£6,214,000	11,231,000	£1292	1309
Expenses . . .	3,376,000	5,859,000	704	681
Net profits . . .	2,838,000	5,372,000	588	628
Cost of construction	£75,000,000	£125,600,000	£15,600	14,610
Profit on capital .	3.78	4.30	...	...

The traffic compares with the returns for Great Britain and United States as follows:—

	Passengers per mile.	Tons goods per mile.
India . . .	5,020	905
United States .	2,290	2,425
Great Britain .	35,540	12,150

Irrigation works have cost 14 millions sterling, and the gross income from the same in 1879 was £1,383,000; after deducting working expenses there was a net profit of £940,000, or $6\frac{3}{4}$ per cent on the capital.

Telegraphs have a length of 18,000 miles, but are little used, the messages not yet reaching 1 per 100 inhabitants.

Revenue rose 32 per cent in ten years ending 1879, the principal items being as follow:—

	1869.	1879.	Increase.
Land tax . .	£20,466,000	22,450,000	£1,984,000
Opium . .	8,386,000	9,340,000	954,000
Salt . .	6,017,000	6,941,000	924,000
Customs and excise	4,654,000	4,946,000	292,000
Public works .	496,000	7,540,000	7,044,000
Stamps and licences	2,923,000	4,012,000	1,089,000
Sundries .	6,644,000	9,979,000	3,335,000
	<u>£49,586,000</u>	<u>£65,208,000</u>	<u>£15,622,000</u>

Almost half the increase is due to reproductive public works, the amount of capital invested therein being 140 millions, as shown above.

Public debt has risen 45 millions since 1870, the interest now amounting to £6,360,000 per annum, against £2,700,000 in 1870.

BALANCE-SHEET OF SOUTH AFRICA.

CAPE COLONY and NATAL may be considered collectively, and have made considerable advancement since 1870, as shown thus—

	1870.	1880.	Increase.
Population .	872,000	1,363,000	55 per cent
Revenue .	£957,000	3,690,000	270 „
Debt .	1,375,000	8,620,000	520 „
Commerce .	7,970,000	17,420,000	117 „
Tonnage entries	420,000	1,380,000	240 „

The increase of population is mostly the result of conquest, the influx of settlers not exceeding 1900 yearly. The whites number 260,000, and their vital statistics compare with Australia as follows:—

	South Africa.	Australia.
Births per 1000 inhab.	43	34½
Deaths . . .	21	15
Increase . .	<u>22</u>	<u>19½</u>

The balance of trade is pretty even, and shows as follows:—

	Amount.		Shillings per inhab.	
	1870.	1880.	1870.	1880.
Imports .	£2,780,000	£8,730,000	64	129
Exports .	5,190,000	8,690,000	119	128
Total .	£7,970,000	£17,420,000	183	257

Owing to improved methods of farming, the pastoral products have increased not only in quantity but in price, viz. wool has risen from 11 to 13 pence, Angora hair from 16 to 20 pence, and ostrich feathers from 63 to 167 shillings per lb., on the general value of shipments of those articles in 1879 compared with 1870. The average fleece is 4 lbs.; the goats yield 2 lbs. of hair, and the ostriches 3 lbs. of feathers, the annual product being as follows:—

	Number.	Clip lbs.	Value.	Yield per animal:
Sheep .	11,280,000	45,000,000	£2,400,000	50 pence
Goats .	810,000	1,600,000	130,000	40 „
Ostriches .	22,000	70,000	600,000	£27

The increase of exports during the last ten years has been 69 per cent, and is shown as follows:—

	1870.	1880.	Increase.
Diamonds .	£2,200,000	£3,600,000	60 per cent
Wool .	1,790,000	2,320,000	28 „
Sugar .	111,000	150,000	36 „
Feathers, etc. etc.	1,089,000	2,620,000	140 „
	£5,190,000	£8,690,000	69 „

Railways were unknown in 1870, and the colonists have since then constructed 900 miles, representing a value equivalent to the whole public debt. They carry annually 1 million passengers and 200,000 tons of merchandise. Almost 2000 miles of telegraph lines have been made in

the same interval, the total length being now 2700 miles. Port entries have more than trebled since 1870.

Public lands are sold at a shilling an acre, or rented to squatters, the average disposed of each year being 1,300,000 acres. The Government have already disposed of 78 million acres, there being still fifty-four millions available for settlers. The colony derives an income of £90,000 a-year from public lands.

The growth of earnings and taxation since 1870 has been—

	Amount.		Per inhabitant.	
	1870.	1880.	1870.	1880.
Earnings . .	£12,800,000	£18,200,000	£14 10 0	£13 8 0
Taxes . .	957,000	3,690,000	1 1 9	2 14 0
Net income	£11,843,000	£14,510,000	£13 8 3	£10 14 0

The incidence of taxation has risen from 8 to 20 per cent, the expenditure being much increased by the growth of debt.

Since 1870 the debt has grown sixfold, and is now 130s. per inhabitant against 31s. in 1870.

Food-supply is insufficient as regards grain, but offers a superabundance of meat. There are 600,000 acres under grain, giving an ordinary crop of 6 million bushels, and as the consumption reaches 7 million, it is necessary to import a million bushels yearly between wheat and rice. The consumption is about $5\frac{1}{2}$ bushels per inhabitant. The meat-supply available is as follows:—

	Tons.	lbs. per inhabitant.
Beef . . .	73,000	120
Mutton . . .	70,000	115
	<u>143,000</u>	<u>235</u>

As the consumption hardly exceeds half this quantity,

the cattle are multiplying so fast that the census of 1875 showed the cows had increased 90 per cent, the sheep 14 per cent in ten years from 1865.

BALANCE-SHEET OF SOUTH AMERICA.

THIS portion of the civilised world has not advanced as much during the last decade as in the previous one, partly owing to civil wars, partly to a commercial crisis, intensified by protection tariffs. There has been, nevertheless, an increase of 12 per cent in the aggregate industries, viz.—

	Millions sterling.		Shillings per inhabitant.	
	1870.	1878.	1870.	1878.
Commerce	85	90	68	72
Agriculture	70	80	56	64
Manufactures	18	22	15	17
Mining	7	7	6	6
Carrying, banking, etc. .	7	11	6	9
	<u>187</u>	<u>210</u>	<u>151</u>	<u>168</u>

The balance of trade is in favour of South America, having undergone a complete change since 1870, and the surplus of exports over imports being 5s. per inhabitant, viz.—

	Millions sterling.		Shillings per inhabitant.	
	1870.	1878.	1870.	1878.
Imports	43	42	34½	33½
Exports	42	48	33½	38½
	<u>85</u>	<u>90</u>	<u>68</u>	<u>72</u>

The commerce of the various States has fluctuated in such a manner that it is necessary to study them separately, viz.—

	Imports.		Exports.	
	1870.	1878.	1870.	1878.
Brazil . .	£16,230,000	£16,350,000	£16,790,000	£20,400,000
Argent. Republic	9,320,000	8,470,000	5,350,000	7,263,000
Uruguay .	2,960,000	3,130,000	2,480,000	3,510,000
Chile . .	4,250,000	4,430,000	5,160,000	5,450,000
Peru . .	5,140,000	2,620,000	6,100,000	3,850,000
Venezuela, etc.	5,150,000	6,600,000	5,960,000	7,627,000
	<u>£43,050,000</u>	<u>£41,600,000</u>	<u>£41,840,000</u>	<u>£48,100,000</u>

There is a rise of 12 per cent in the trade of Brazil, 7 in that of the Argentine Republic, 18 in that of Uruguay, and $5\frac{1}{2}$ per cent in that of Chile, but a decline of 45 per cent in that of Peru.

Coffee is the great industry of Brazil, the crop of 1879 reaching 335,000 tons, of which 273,000 were exported. Sugar is another Brazilian product, grown in most parts of the empire, yet the total shipments are no greater than those of the little island of Mauritius, 140,000 tons.

Wool is the source of Argentine wealth, but so many of the inhabitants have taken to agriculture and manufactures, on account of the 40 per cent import tariff, that sheep-farming has declined. The average exports of wool in the years 1872-73 amounted to 221 million lbs., and in 1878-79 to no more than 202 million lbs. The value of wool and sheepskins in 1872 was £4,103,000, and has now fallen to £3,736,000. The export of dried beef has likewise fallen from 92 to 74 million lbs., but the price having risen from £8 to £11 per ton, the value of shipments is the same.

Copper is the great product of Chile, varying from $2\frac{1}{2}$ to 3 millions sterling per annum. Guano is superseded in Peru by nitrate of soda, of which 20,000 tons are shipped monthly. Sugar is also grown in Peru, mostly for home use.

Railways have been made, with English capital, all over the continent, having at present three times the length which they had in 1870. Telegraphs have grown fivefold.

	Railways, miles.		Telegraphs, miles.	
	1870.	1879.	1870.	1879.
Brazil	630	1,910	1,400	4,300
Argentine Republic . .	590	1,480	900	4,850
Peru	300	1,440	300	1,600
Chile	480	1,050	800	4,500
Uruguay	40	235	60	760
Venezuela . . . .	...	70	...	350
New Grenada	46	66	200	1,850
Ecuador . . . .	...	26	...	210
Bolivia . . . .	...	130	...	490
Paraguay	45	45	45	45
	<u>2,131</u>	<u>6,452</u>	<u>3,705</u>	<u>18,955</u>

The railways, built since 1870, make up 4400 miles, and cost nearly 70 millions sterling. There are at present fifty-six lines working, the cost and traffic of which may be summed up thus :—

State.	Miles.	Cost.	Receipts.	Profit on Capital.
Brazil	1910	£35,800,000	£2,400,000	3½ per cent
Argentine Republic	1480	10,150,000	1,310,000	4½ „
Chile	1050	9,800,000	950,000	4 „
Peru	1440	32,400,000	600,000	1 „
Uruguay, etc. . .	572	6,950,000	550,000	4 „
	<u>6452</u>	<u>£95,100,000</u>	<u>£5,810,000</u>	<u>3 „</u>

Telegraphs are little used, but the traffic is increasing very fast. In 1870 there were only 190,000 messages, or one for 131 inhabitants ; but in 1879 the number rose to 857,000, or one for 30, say one-tenth of the European average.

Revenue has risen 26, public debt 45, per cent :—

	Revenue.		Debt.	
	1870.	1878.	1870.	1878.
Brazil . . .	£7,800,000	£10,200,000	£72,400,000	£81,500,000
Argent. Republic	2,960,000	3,450,000	11,800,000	26,400,000
Uruguay . . .	830,000	1,250,000	8,200,000	10,350,000
Chile . . .	2,250,000	3,100,000	5,400,000	12,600,000
Peru . . .	3,000,000	3,370,000	22,000,000	42,800,000
Bolivia . . .	400,000	460,000	3,000,000	6,500,000
Paraguay . . .	...	44,000	...	3,400,000
Ecuador . . .	300,000	350,000	3,000,000	3,600,000
Venezuela . . .	700,000	940,000	11,000,000	13,600,000
New Grenada . .	860,000	980,000	2,000,000	4,100,000
	<u>£19,100,000</u>	<u>£24,144,000</u>	<u>£138,800,000</u>	<u>£204,850,000</u>

Besides the revenue above stated there are local taxes, which average 8 shillings per inhabitant in Brazil, 22 shillings in the Argentine Republic, and 6 shillings in Chile. The debts as given above do not comprehend municipal debts or railway guarantees, but national and provincial debts, treasury bonds, and all funded and unfunded obligations, including also paper-money. Dividing all into home and foreign debts we find the following:—

	London loans.	Internal debt.	Total.
Brazil . . .	£22,300,000	£59,200,000	£81,500,000
Argentine Republic	10,200,000	16,200,000	26,400,000
Chile . . .	6,800,000	5,800,000	12,600,000
Uruguay . . .	3,500,000	6,850,000	10,350,000
*Peru . . .	31,800,000	11,000,000	42,800,000
*Venezuela . . .	6,700,000	6,900,000	13,600,000
*Bolivia, etc. . .	8,400,000	9,200,000	17,600,000
Total . . .	<u>£89,700,000</u>	<u>£115,150,000</u>	<u>£204,850,000</u>

Those marked with an asterisk being defaulters, the loans in London on which interest is paid amount only to 43 millions. Scarcely half of the internal debts get interest, for some of them are in suspense, and others consist of “curso forzoso” paper-money. Specie payments are now

suspended in the following countries, whose currency is as follows :—

State.	Amount.	Value.	Ratio per inhab.
Brazil	£27,700,000	80 per cent	£2 15 6
Argentine Republic .	9,600,000	82 „	4 14 0
Uruguay	940,000	20 „	2 4 0
Chile	8,200,000	85 „	3 12 0
Peru	15,000,000	20 „	5 18 0
Five others . . .	5,000,000	80 „	0 13 0
Total	£66,440,000	67 „	£2 11 0

The amount of paper was only 37 millions in 1870 ; it has therefore increased nearly 80 per cent.

Distributing the earnings, taxation, and debt for each country, according to population, we find as follows, per inhabitant :—

	Earnings.	Taxes.	Debt.
Brazil	£8 6 0	£1 8 0	£8 4 0
Argentine Republic .	10 3 0	2 11 0	12 14 0
Chile	8 11 0	1 16 0	5 18 0
Peru	8 8 0	2 0 6	16 12 0
Uruguay	14 10 0	3 13 0	23 10 0
Average of above .	£8 17 0	£1 15 4	£10 2 3

Population has risen from 24,800,000 to 25,600,000, an increase of 3 per cent, one-half of which is due to immigration. The net gain from arrivals over departures, per annum, is as follows :—

Brazil	4,700 persons.
River Plate	38,200 „
West Coast	8,600 „
Total	51,500 „

Food-supply is superabundant in some countries, insufficient in others. Maize and mandioca are commoner than wheat, which is not generally cultivated except in

Chile and the Argentine Republic. Every year Peru imports grain from California, and Brazil from the Black Sea. Meat is so abundant in the River Plate that the flocks and herds of Buenos Ayres and Montevideo could feed 53 millions of people, or 21 times the actual population, the available yearly supply without reducing capital, being as follows :—

	Animals for slaughter.	Tons of meat.
Cows . .	3,150,000	790,000
Sheep . .	25,500,000	510,000
Pigs . .	400,000	30,000
Total .	<u>29,050,000</u>	<u>1,330,000</u>

The actual exportation consists of 70,000 tons of beef to Brazil and Cuba, and 130,000 cows to Chile. The available surplus for exportation is 1,220,000 tons, but the beef is inferior, while the mutton is excellent.

THE END.



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